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Kimura et al.

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(54) **CONTENTS SALES METHOD AND CYBER MALL SYSTEM USING SUCH METHOD AND STORAGE MEDIUM STORING THEREIN ITS CONTENTS SALES PROGRAM**

WO97/03410 1/1997 (WO) .
WO98/07085 2/1998 (WO) .

OTHER PUBLICATIONS

Varbusiness, E-commerce, pp 1-3, Dec. 1997.*
Computerworld, Electronic commerce, pp 1-4, Dec. 1997.*
Weston Rusty, Web automation, Online service information, pp 1-4, Jul. 1997.*
Glenn Rifkin, Open market Hopes, pp 1, Mar. 1996.*
Multimedia, World travel online, pp 1, Sep. 1993.*

* cited by examiner

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(52) **U.S. Cl.** **705/27; 705/14; 705/20; 705/26; 705/27; 705/44**

(58) **Field of Search** 705/14, 20, 21, 705/26, 27, 44, 75; 701/209; 345/351, 355; 455/5, 4; 348/12, 6

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,677,552 * 6/1987 Sibley, Jr. 364/408
5,809,144 9/1998 Sirbu et al. .
5,946,665 * 8/1999 Suzuki et al. 705/26

FOREIGN PATENT DOCUMENTS

675624 * 4/1995 (EP) .
822535 A2 2/1998 (EP) .

(57) **ABSTRACT**

A cyber mall system has a contents sales apparatus for selling digital contents, a contents purchasing apparatus, and a network for connecting those components. When the digital contents are registered into the contents sales apparatus, in the case where the digital contents are sold by the contents sales apparatus for defining digital contents using conditions constructed by a server side access control to the digital contents which is executed on the contents sales apparatus side and a physical act restriction to control an access to the digital contents which is executed on the contents purchasing apparatus side that purchased the digital contents, digital contents personal using conditions are generated on the basis of the digital contents using conditions and are given to a customer. When the digital contents are again purchased if the delivery of the digital contents fails, so long as the digital contents personal using conditions given at the time of purchase are valid, the digital contents are again delivered without again collecting a digital contents value.

10 Claims, 26 Drawing Sheets

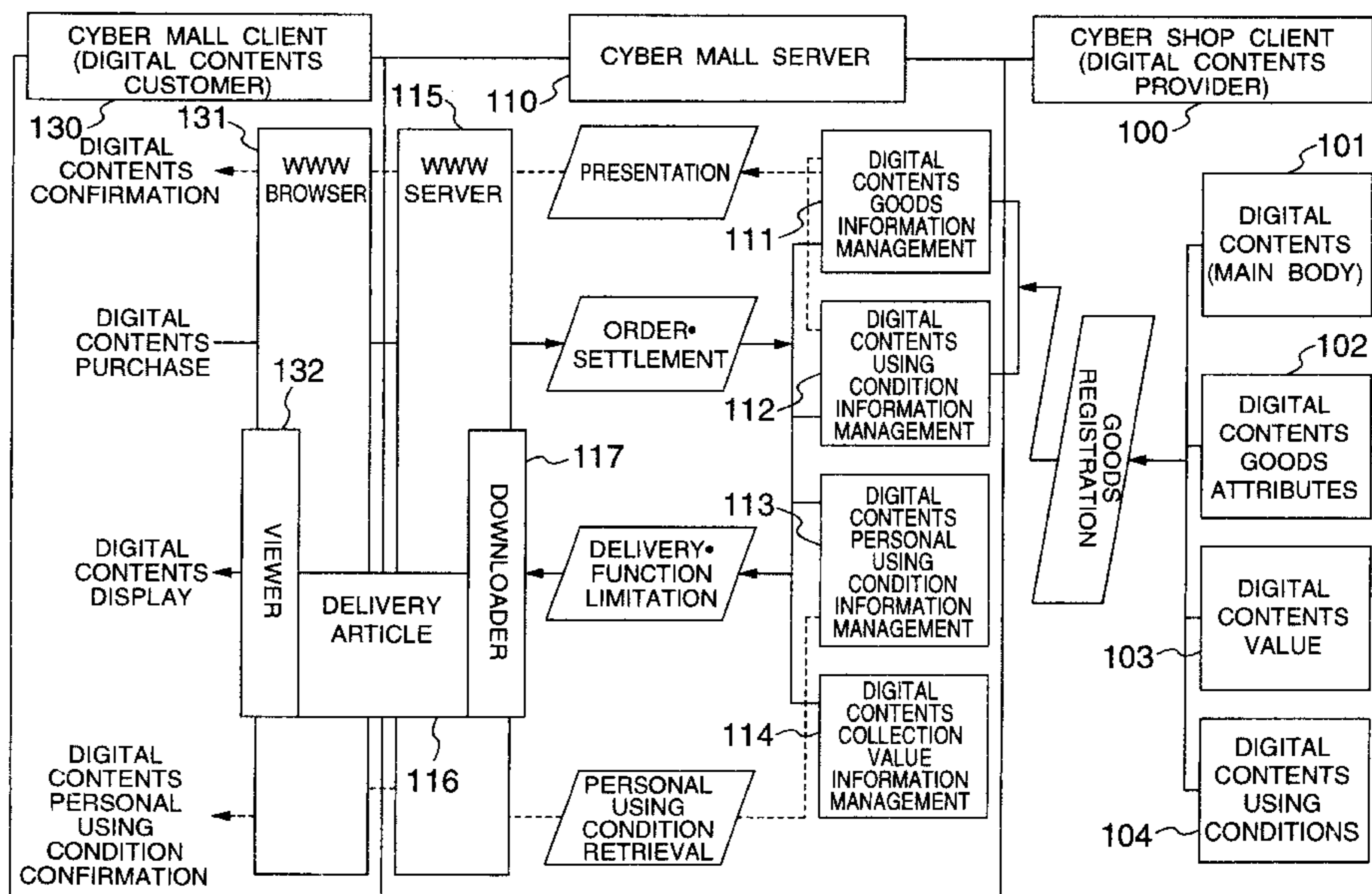
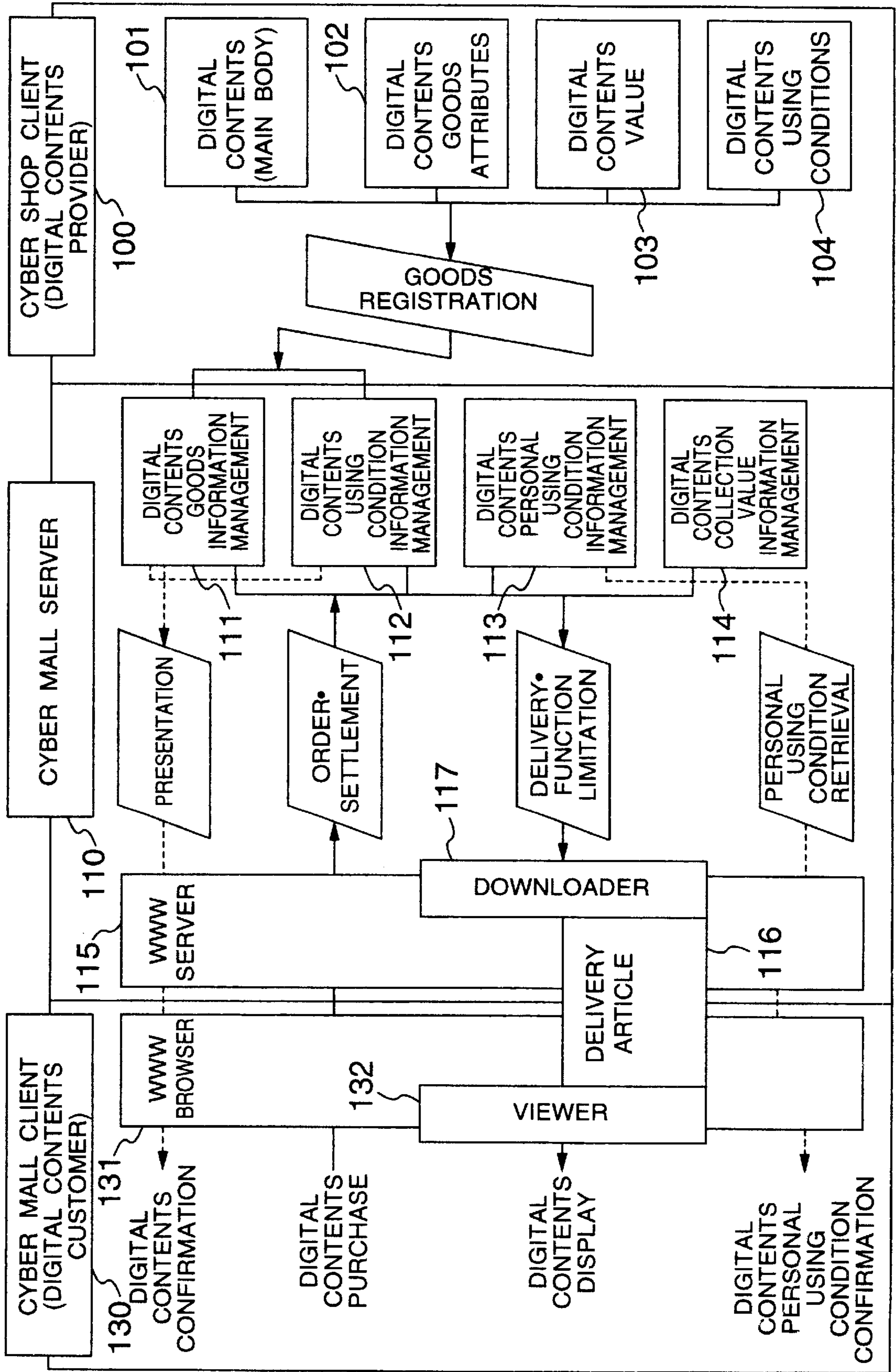


FIG. 1



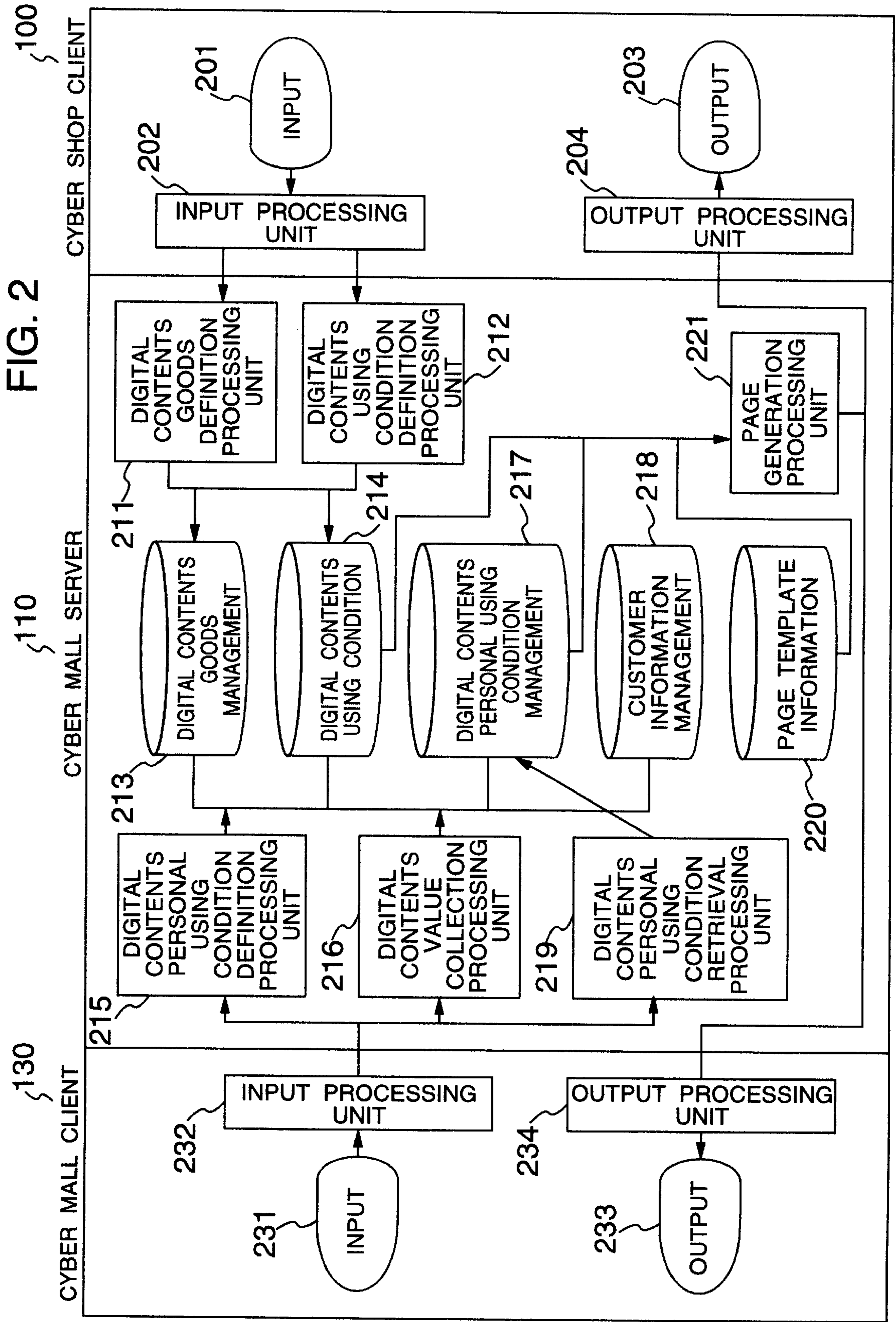


FIG. 3

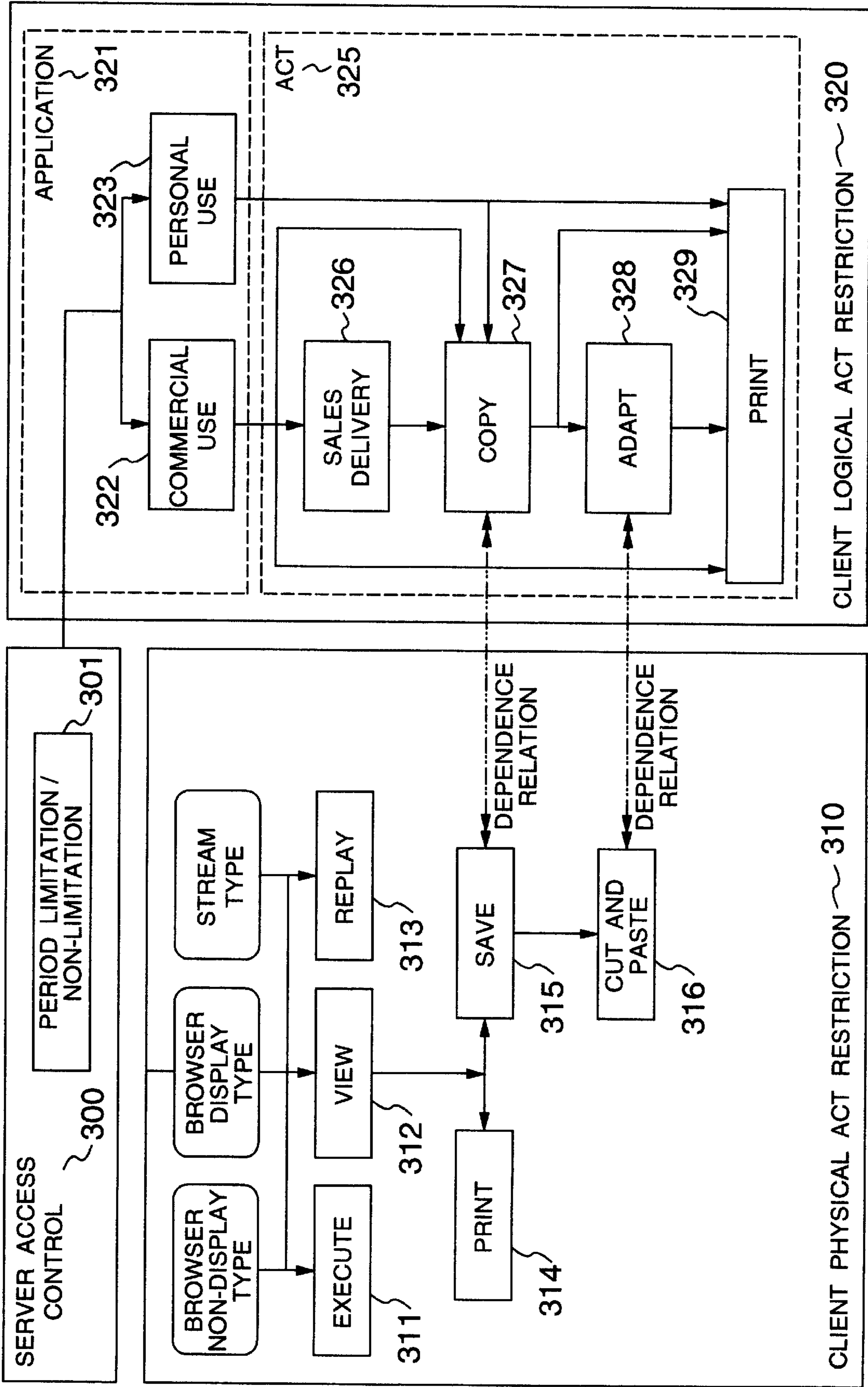


FIG. 4

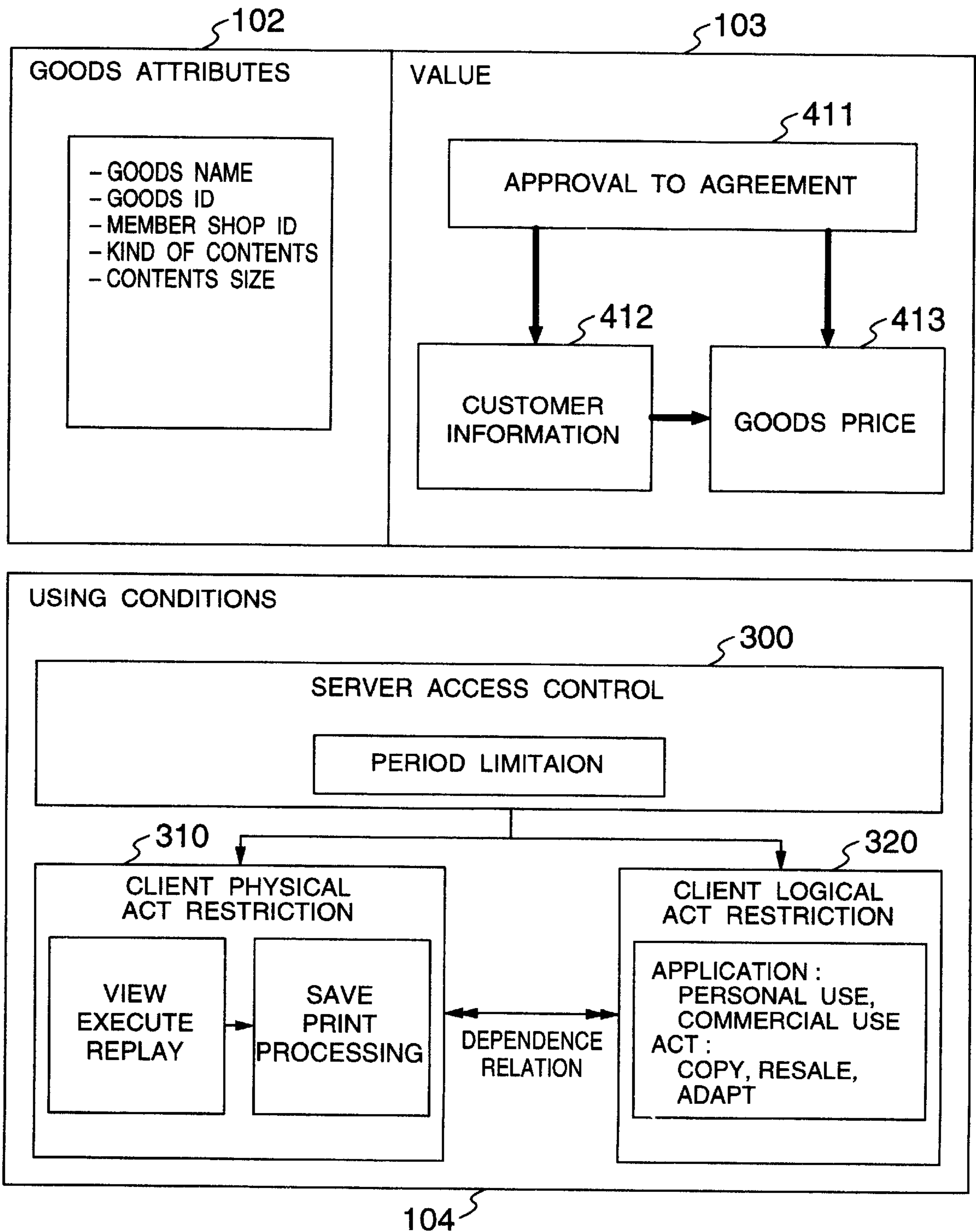


FIG. 5

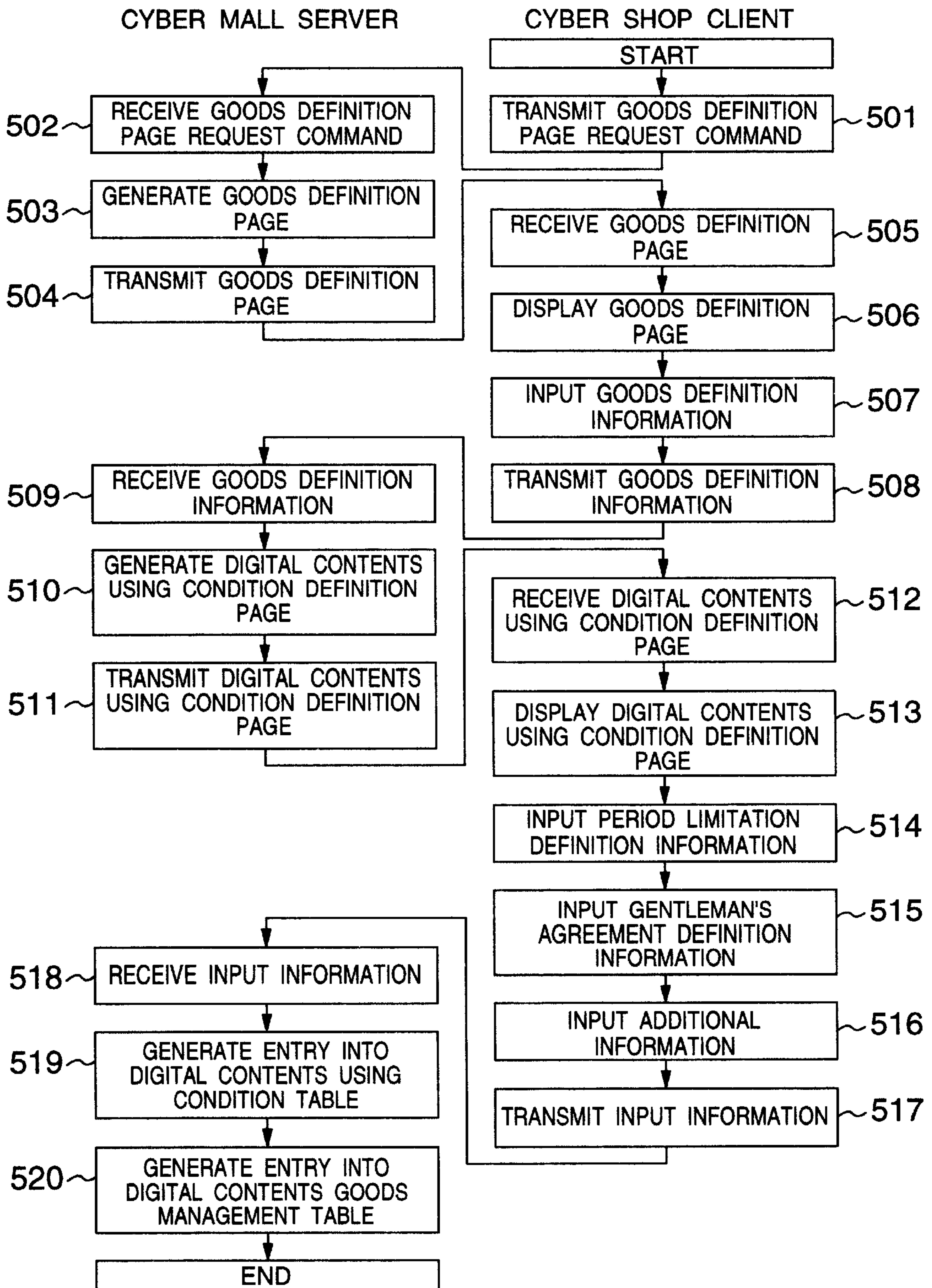


FIG. 6

DIGITAL CONTENTS GOODS DEFINITION

GOODS NAME ~601

GOODS PRICE
 CHARGE ~602 FREE

INPUT OF CUSTOMER INFORMATION

NAME ~603

E-MAIL ADDRESS ~604

ADDRESS ~605

TEL NO. ~606

INPUT IS UNNECESSARY ~607

APPROVAL TO AGREEMENT IS

NECESSARY ~608 UNNECESSARY ~609

610 ~

FIG. 7

DEFINITION OF DIGITAL CONTENTS
USING CONDITIONS

SETTING OF ACCESS CONTROL

SETTING OF PERIOD

- RELATIVE TERM [] ~701
- ABSOLUTE TERM [] ~702
- NON-LIMITATION ~703

SETTING OF LEGAL RESTRICTION OF DIGITAL CONTENTS
EXPRESSING METHOD OF CONTENTS

- SEE ~704
- EXECUTE ~705
- REPLAY ~706

APPLICATION PERMISSION OF CONTENTS

- PERSONAL USE ~707
- COMMERCIAL USE ~708

USE PERMISSION RANGE OF CONTENTS

- INHIBIT SALES DELIVERY (COMMERCIAL USE) ~709
- INHIBIT COPY ~711
- INHIBIT ADAPTING ~713
- INHIBIT PRINTING ~715
- PERMIT SALES DELIVERY (COMMERCIAL USE) ~710
- PERMIT COPY ~712
- PERMIT ADAPTING ~714
- PERMIT PRINTING ~716

FORCED EXERCISE OF LEGAL RESTRICTION

- FORCEDLY EXERCISE ~717
- NOT FORCEDLY EXERCISE ~718

SETTING OF ADDITIONAL ITEMS

[] ~719

720 [TRANSMIT]

[CANCEL]

FIG. 8

GOODS NAME	MEMBER SHOP NAME	USING CONDITION ID	PRICE	CUSTOMER INFORMATION	-----
APPLE	CardHouse	0003	¥ 100	E-MAIL ADDRESS	-----
801	802	803	804	805	

FIG. 9

USING CONDITION ID	SERVER ACCESS RIGHT	RELATIVE TERM	RELATIVE TERM UNIT	GENTLEMAN'S AGREEMENT APPLICATION	GENTLEMAN'S AGREEMENT ACT	FORCED EXERCISE	-----
0003	ABSENT	—	—	PERSONAL USE	PRINT, COPY	PRESENT	-----
901	902	903	904	905	906	907	

FIG. 10

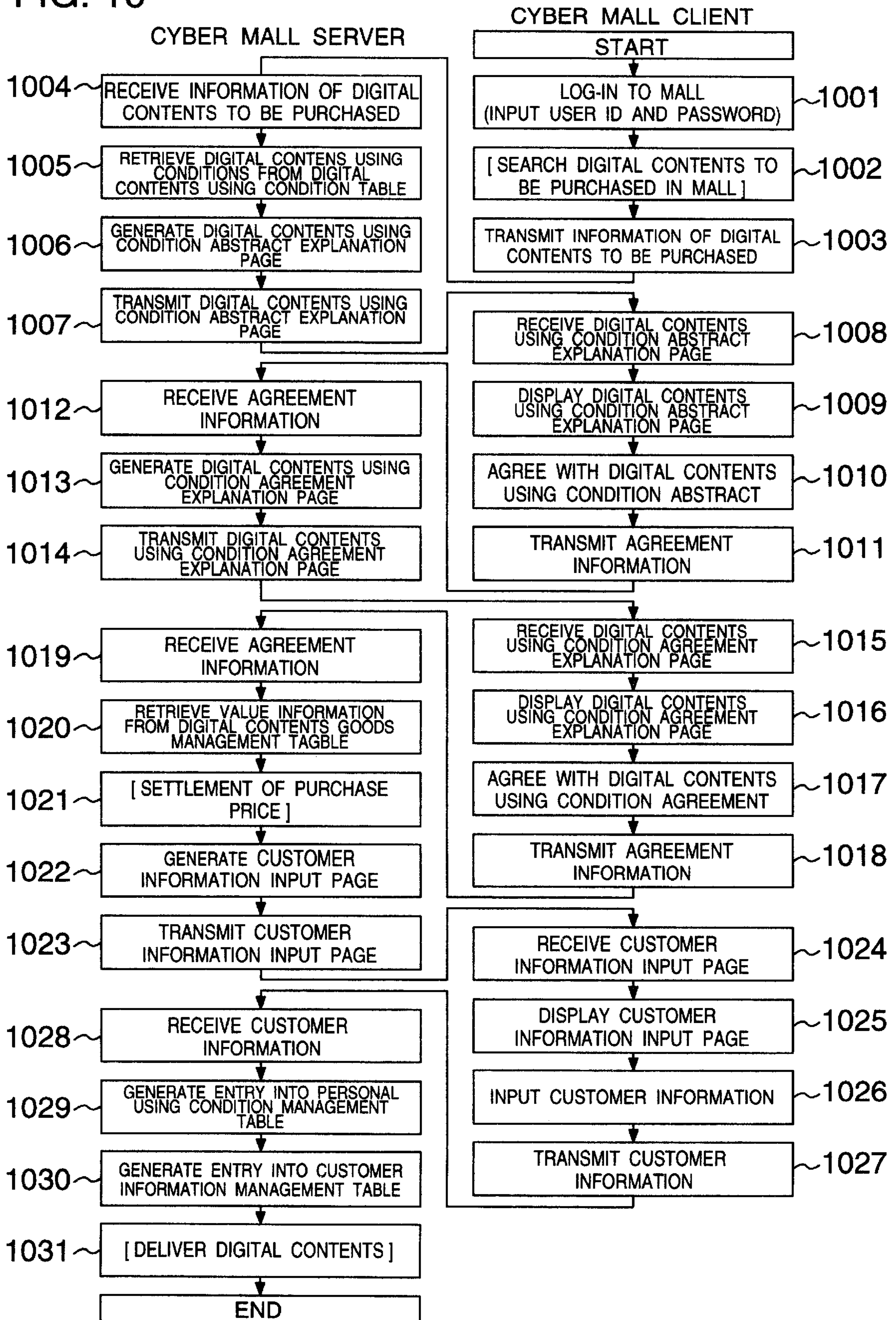


FIG. 11

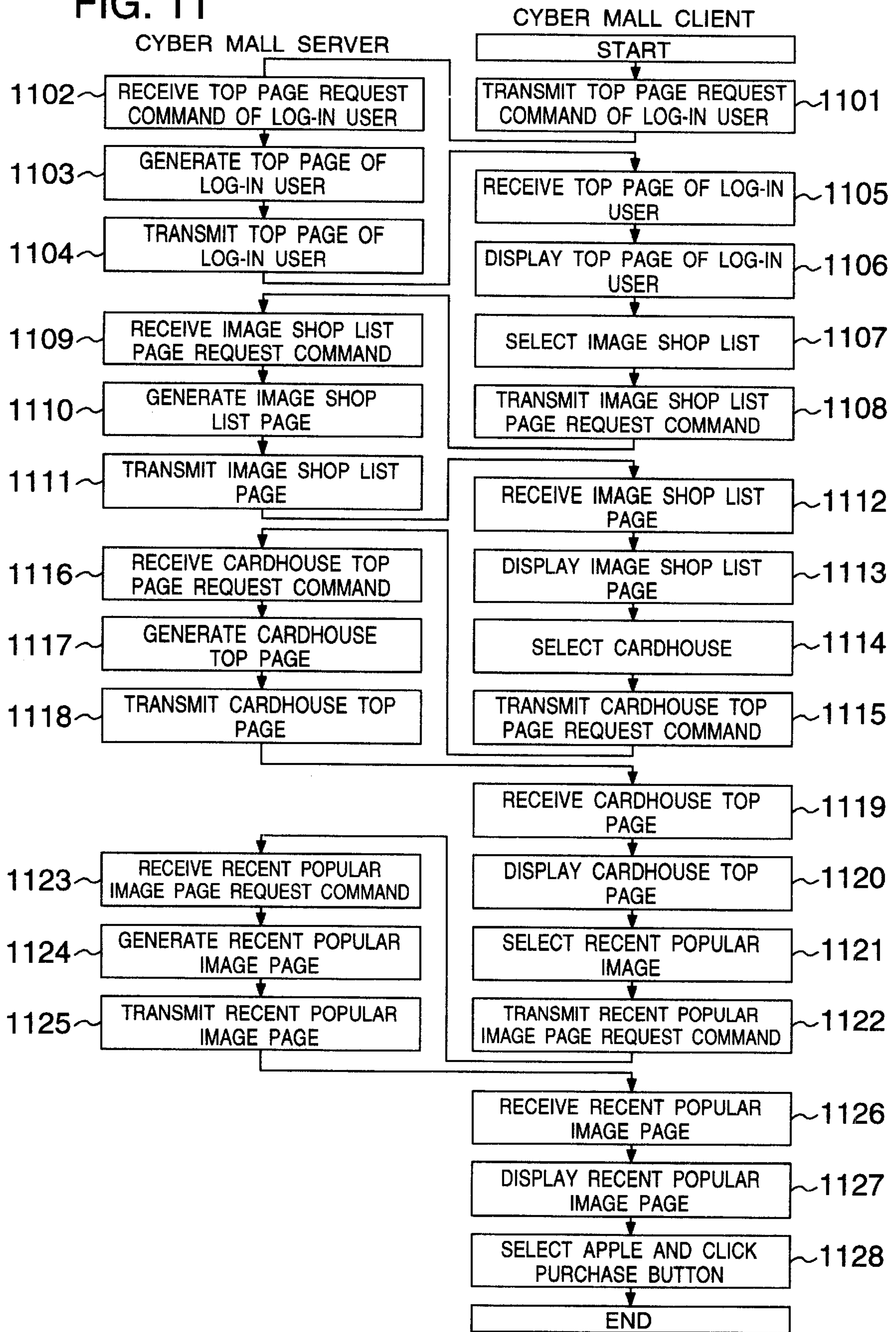


FIG. 12

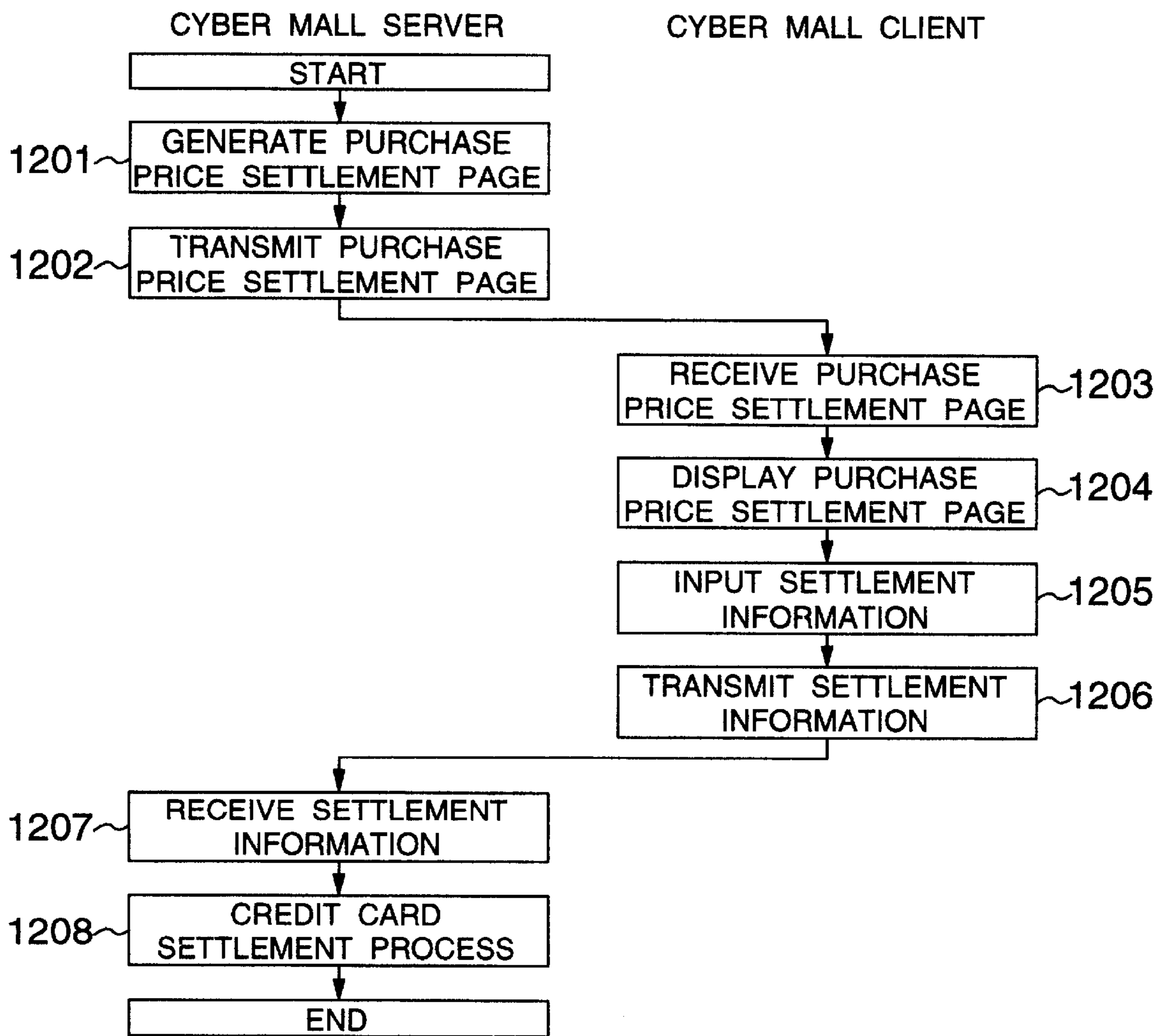


FIG. 13

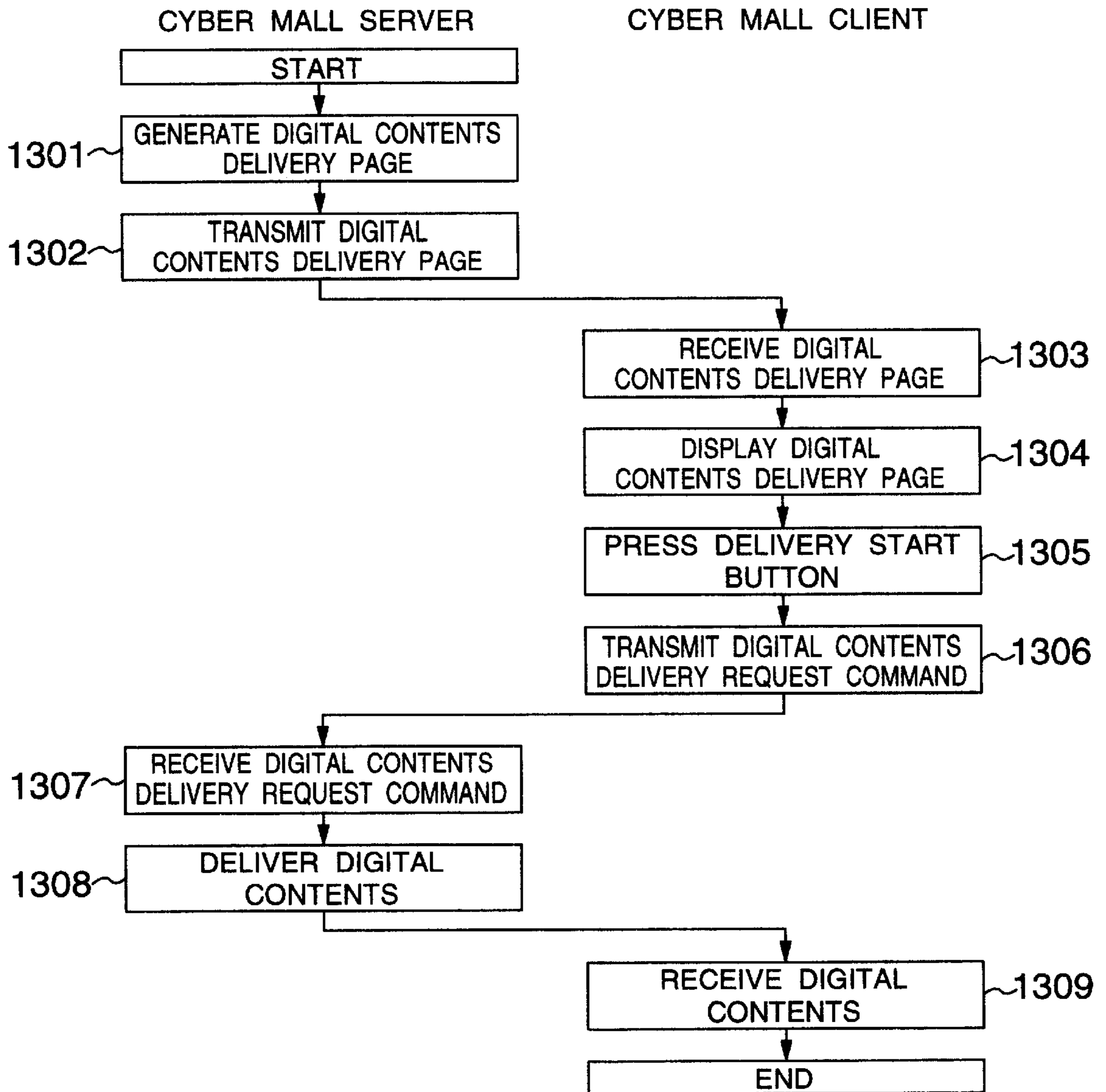


FIG. 14

WELCOME TO
HITACHI CYBER MALL

USER ID 1401

PASSWORD 1402

1403

FIG. 15

TOP PAGE OF
MS. KAORU NAGISA

HERE IS BARGAIN INFORMATION OF
THIS WEEK

IMAGE SHOP LIST 1501 1502

NEWS SUBSCRIBING SERVICE LIST

PURCHASE HISTORY 1503

PERSONAL USING CONDITION LIST 1504

FIG. 16

IMAGE SHOP LIST

YOU CAN BUY EVEN ONE IMAGE IN
THOSE SHOPS

1601 {

<i>CardHouse</i>	THERE ARE MANY IMAGES FOR CARD
<i>texPics</i>	HERE ARE IMAGES FOR WALL SHEET

RETURN

FIG. 17

CardHouse

MOVE TO YOUR FAVORITE
PAGE FROM MENU AND
SELECT DESIRED IMAGE

RECOMMENDATION OF THIS WEEK
SUITABLE FOR GREETING CARD

HIT RANKING

RECENT POPULAR IMAGES } 1701

RETURN

FIG. 18

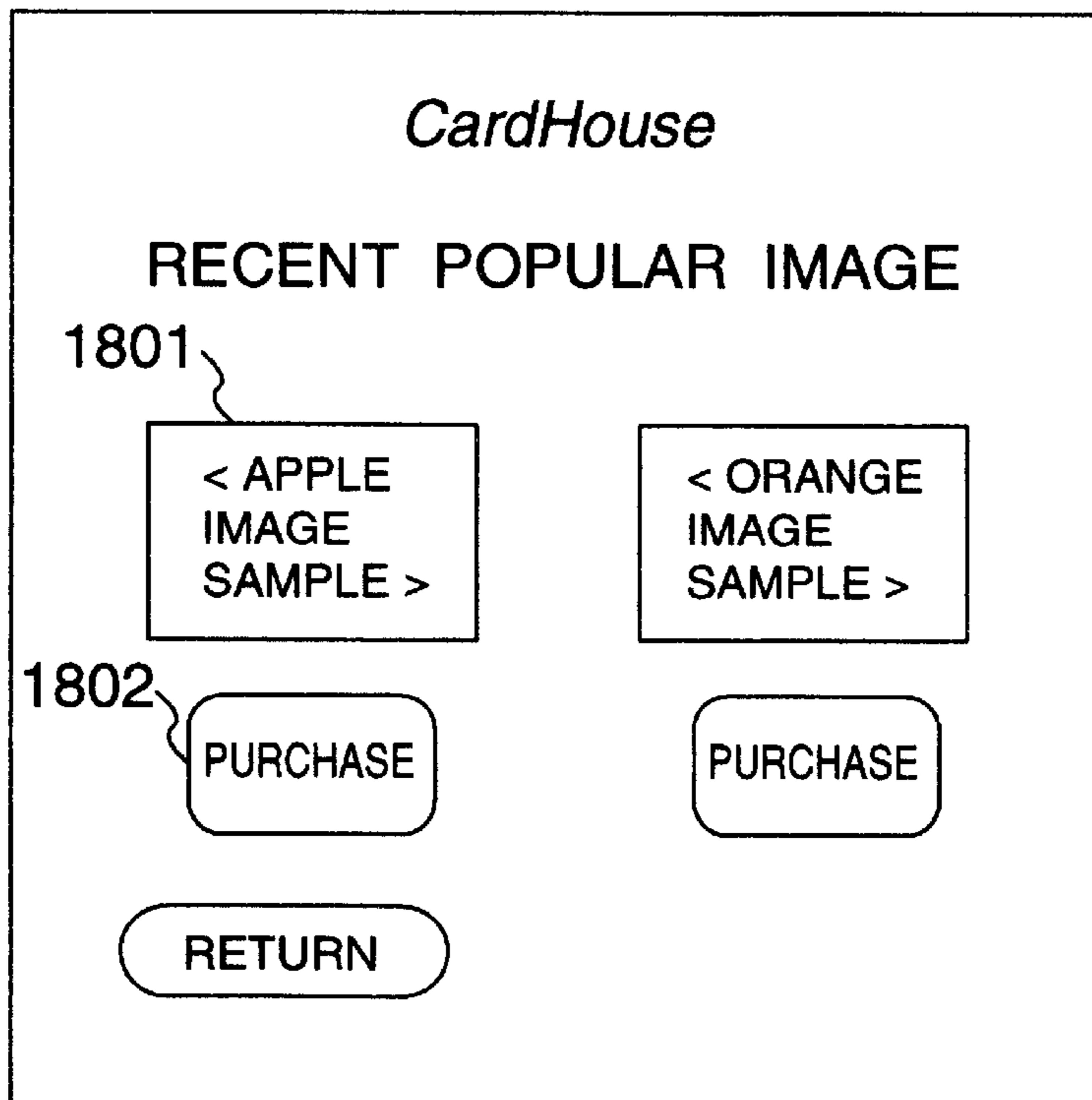


FIG. 19

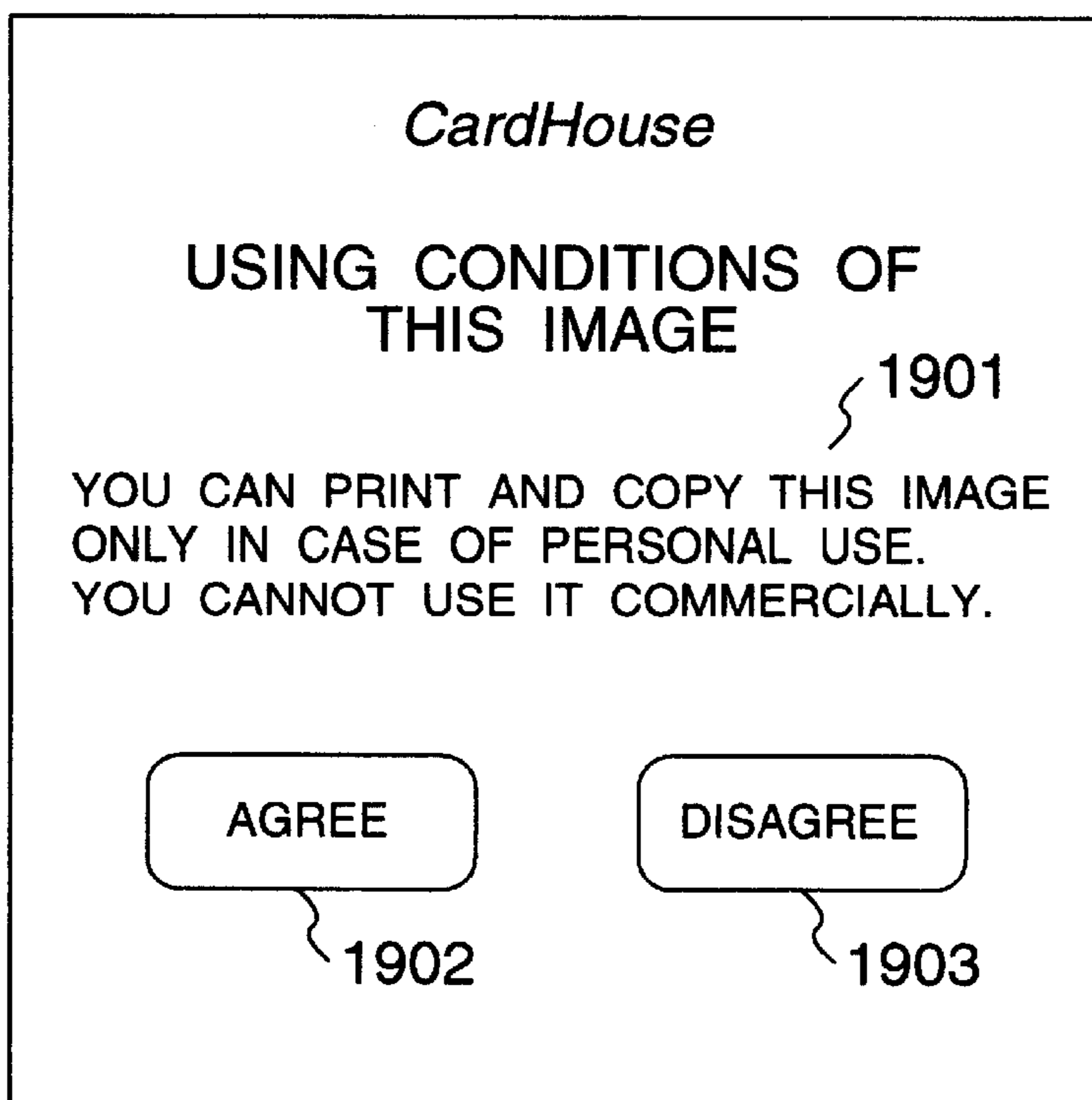


FIG. 20

CardHouse

AGREEMENT TO USE OF THIS IMAGE 2001

RIGHT OF THIS IMAGE IS
THIS IMAGE IS FOR PERSONAL USE

AGREE 2002 DISAGREE 2003

FIG. 21

CardHouse

SETTLEMENT OF PURCHASE PRICE

KIND OF CARD 2101

CARD NO. 2102

VALID TERM 2103

NAME OF CARD OWNER 2104

TRANSMIT 2105 CANCEL

FIG. 22

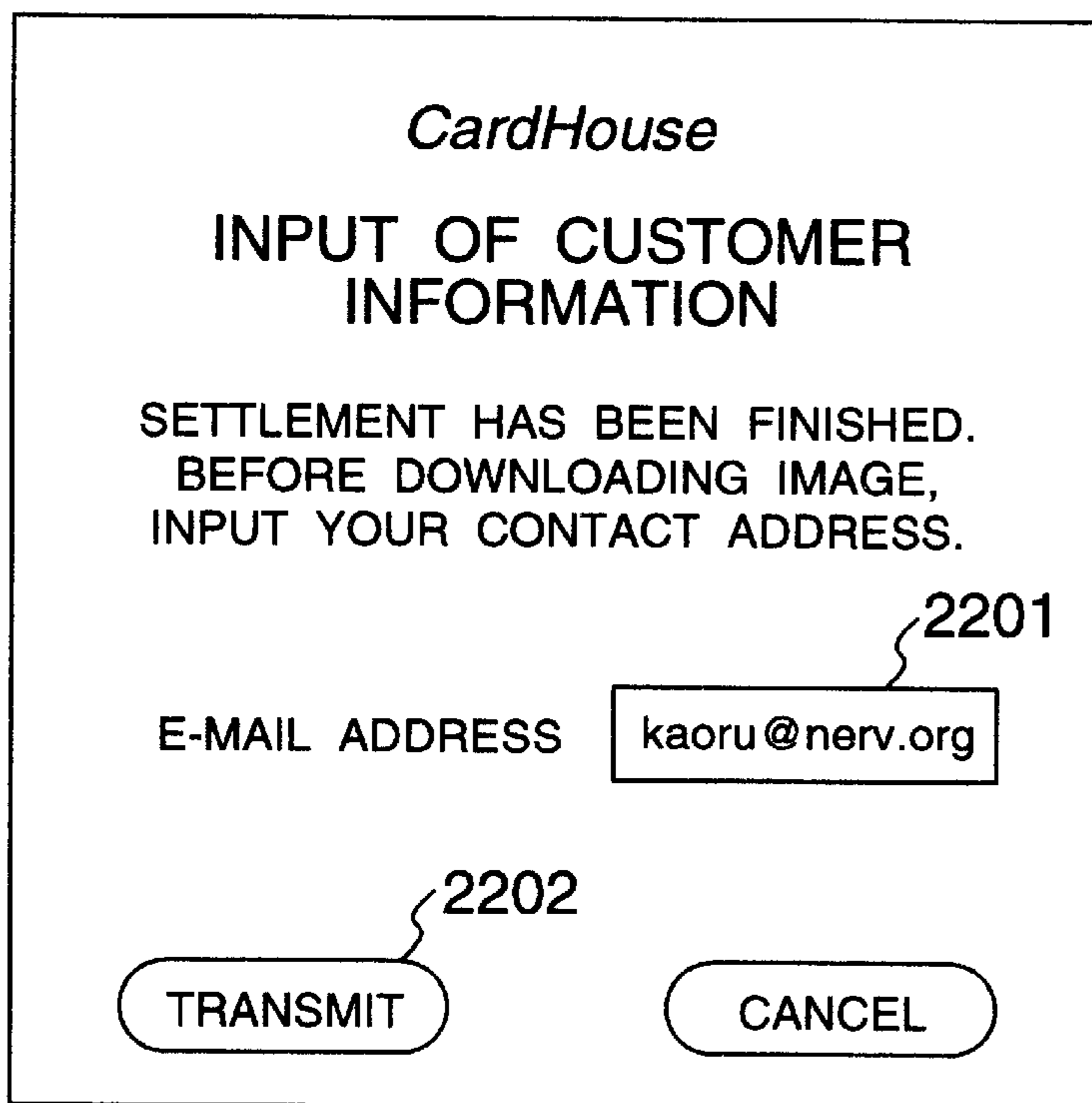


FIG. 23

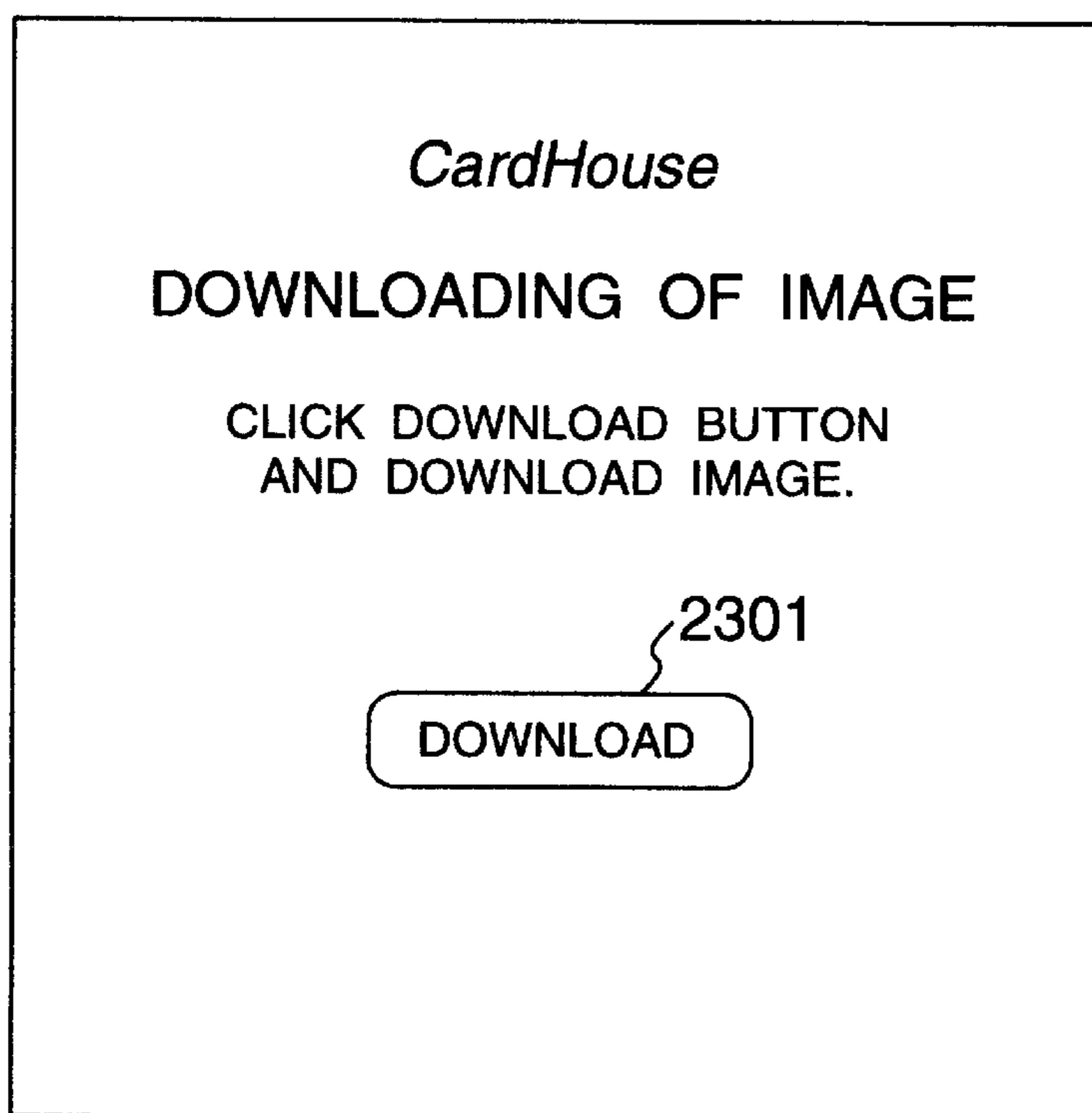


FIG. 24

USER ID	PERSONAL USING CONDITION ID	GOODS NAME	MEMBER SHOP NAME	PURCHASE DATA	VALID TERM	USING CONDITION SITUATION
ABCDE	98110-5	APPLE	Card House	1998.01.10	INDEFINITE	VALID

2401 { 2402 { 2403 { 2404 { 2405 { 2406 { 2407

FIG. 25

USER NAME	E-MAIL ADDRESS	ADDRESS	TEL NO.
kaoru	kaoru@nerv.org	---	---

{ 2501 { 2502 { 2503 { 2504

FIG. 26

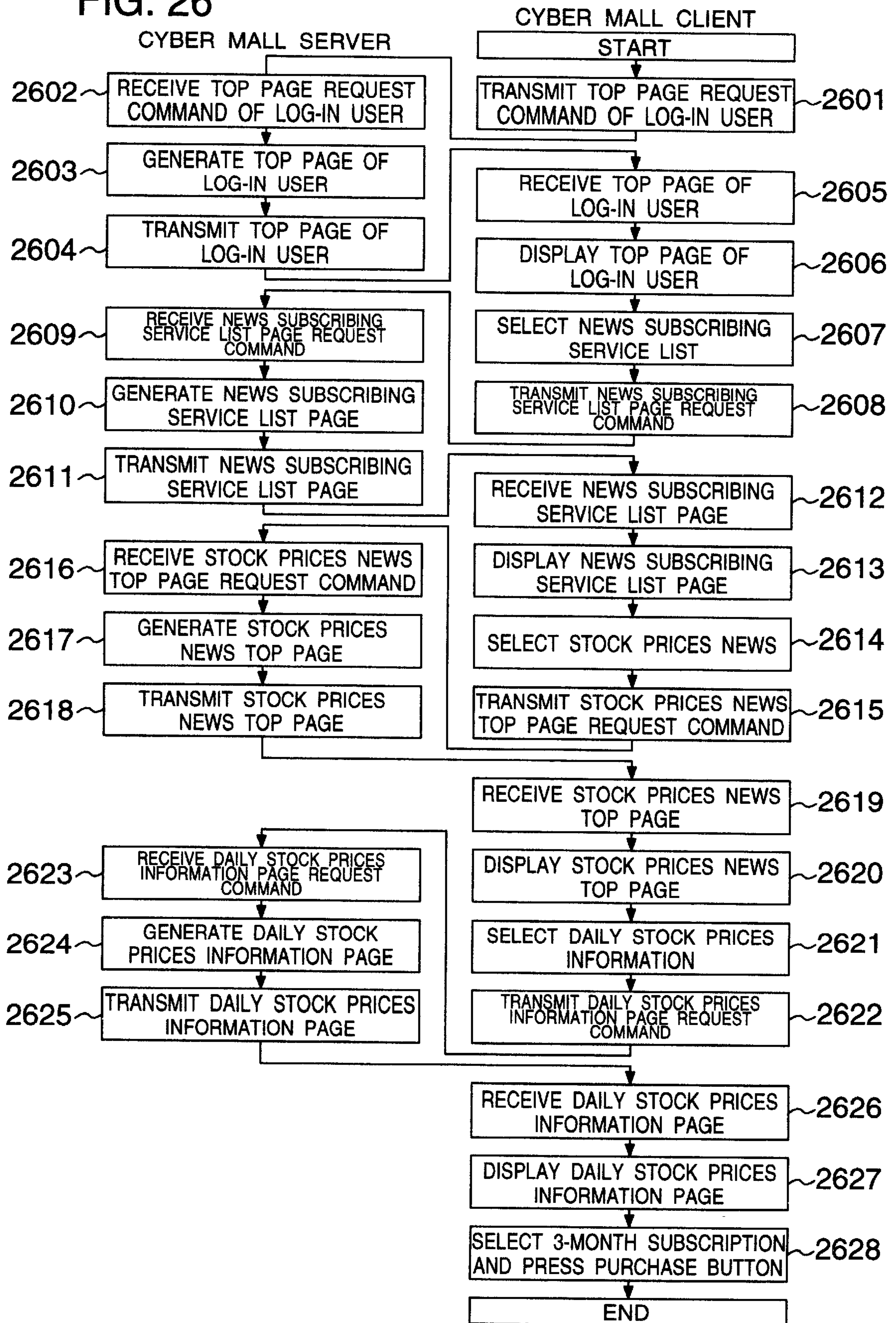


FIG. 27

LIST OF NEWS SUBSCRIBING SERVICE

YOU CAN PERIODICALLY SUBSCRIBE VARIOUS NEWS HERE

<i>Computer News</i>	PRESENT TRADE INFORMATION AND NEW PRODUCT INFORMATION
<i>STOCK PRICES NEWS</i>	PRESENT TIMELY MARKET INFORMATION

2701

RETURN

FIG. 28

STOCK PRICES NEWS

MOVE TO YOUR FAVORITE PAGE FROM MENU AND SELECT NEWS TO BE SUBSCRIBED

2801

DAILY STOCK PRICES INFORMATION

WEEKLY MARKET ANALYSIS

RETURN

FIG. 29

STOCK PRICES NEWS

DAILY STOCK PRICES INFORMATION

SELECT YOUR DESIRED
SUBSCRIBING PERIOD

1-WEEK SUBSCRIPTION (¥100)	<input type="button" value="PURCHASE"/>
1-MONTH SUBSCRIPTION (¥300)	<input type="button" value="PURCHASE"/>
3-MONTH SUBSCRIPTION (¥700)	<input type="button" value="PURCHASE"/>

2901

2902

FIG. 30

STOCK PRICES NEWS

USING CONDITIONS OF THIS NEWS

3001

ALTHOUGH YOU CAN READ DAILY
STOCK PRICES INFORMATION ON
DESIGNATED SITE, YOU CANNOT
PRINT AND COPY IT EVEN FOR
PERSONAL USE.

<input type="button" value="AGREE"/>	<input type="button" value="DISAGREE"/>
--------------------------------------	---

3002

3003

FIG. 31

STOCK PRICES NEWS

AGREEMENT TO USE OF THE NEWS

COPYRIGHT OF INFORMATION IS

PRINTING AND COPY OF THE INFORMATION ARE

COMMERCIAL USE IS FULLY INHIBITED

3101

AGREE

DISAGREE

3102 3103

FIG. 32

STOCK PRICES NEWS

SETTLEMENT OF PURCHASE PRICE

KIND OF CARD

CARD NO.

VALID TERM

NAME OF CARD OWNER

TRANSMIT

CANCEL

3201

3202

3203

3204

3205

FIG. 33

STOCK PRICES NEWS

INPUT OF CUSTOMER INFORMATION

SETTLEMENT HAS BEEN FINISHED

BEFORE YOU READ STOCK PRICES INFORMATION, INPUT YOUR CONTACT ADDRESS.

NAME 3301

E-MAIL ADDRESS 3302

3303 3302

FIG. 34

STOCK PRICES NEWS

READ DAILY STOCK PRICES INFORMATION

CLICK VIEW BUTTON AND READ NEWS

3401

FIG. 35

USER ID	PERSONAL USING CONDITION ID	GOODS NAME	MEMBER SHOP NAME	PURCHASE DATA	VALID TERM	USING CONDITION SITUATION
ABCDE	98118-7	DAILY STOCK PRICES INFORMATION OF 3-MONTH	STOCK PRICES NEWS	1998.01.18	1998.04.17	VALID

3501 { 3502 { 3503 { 3504 { 3505 { 3506 { 3507

FIG. 36

USER NAME	E-MAIL ADDRESS	ADDRESS	TEL NO.
KAORU NAGISA	kaoru@nerv.org	—	—

3601 { 3602

FIG. 37

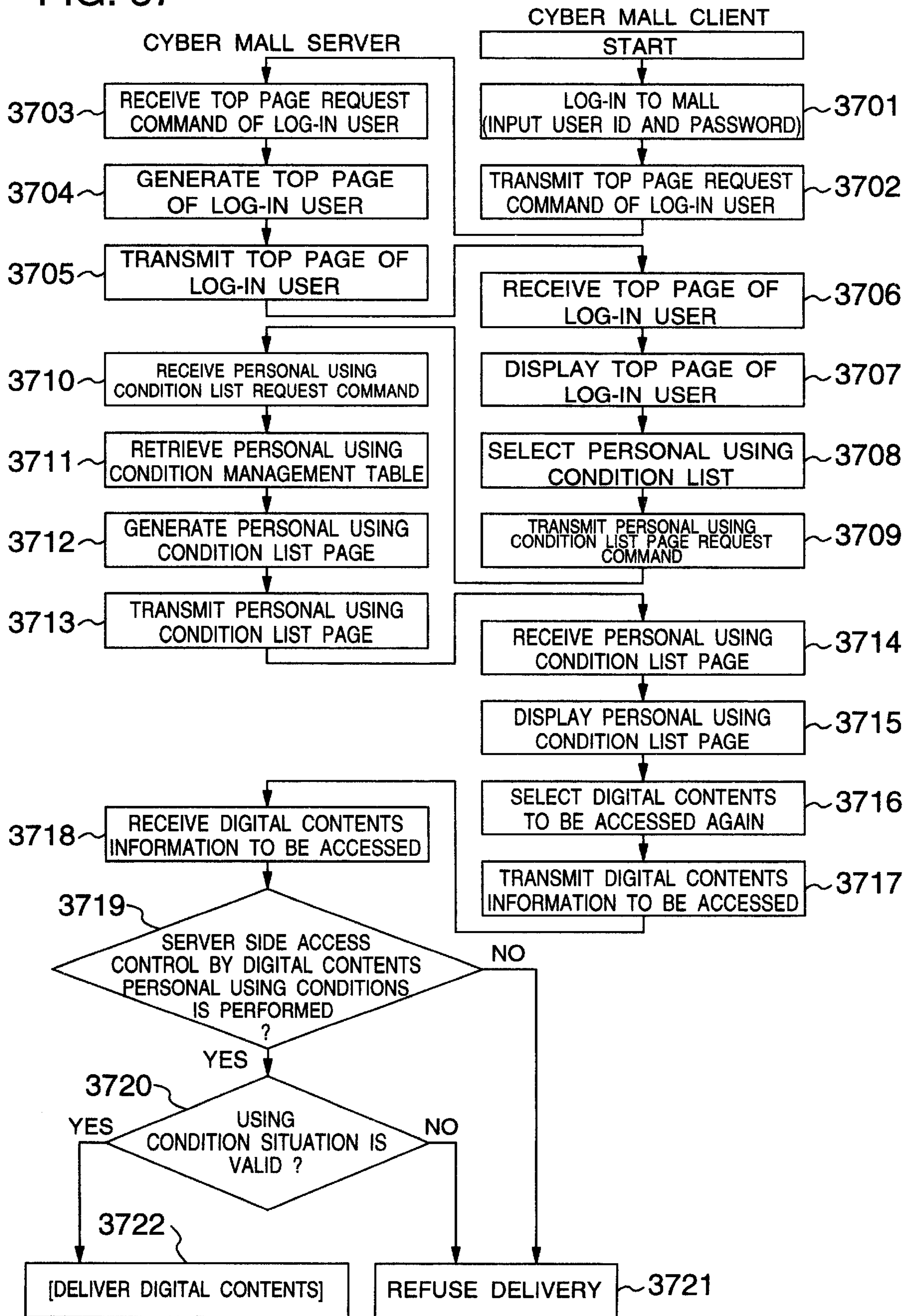


FIG. 38

PERSONAL USING CONDITION LIST

PERSONAL USING CONDITIONS MS. KAORU NAGISA
HAS NOW ARE AS FOLLOWS.

MEMBER SHOP NAME	PERSONAL USING CONDITION ID	GOODS NAME	VALID TERM	ACCESSING METHOD
Cardhouse	98110-5	APPLE	INDEFINITE	DOWNLOAD
STOCK PRICES NEWS	98118-7 3802	DAILY STOCK PRICES INFORMATION OF 3-MONTH	1998.04.17 3804	<u>READ</u> 3805

3806 3807 3808 3809 3810

RETURN

**CONTENTS SALES METHOD AND CYBER
MALL SYSTEM USING SUCH METHOD AND
STORAGE MEDIUM STORING THEREIN
ITS CONTENTS SALES PROGRAM**

BACKGROUND OF THE INVENTION

The present invention relates to a contents sales method, a cyber mall system using such a method, and a storage medium in which its contents sales program has been stored.

With a spread of the Internet, a cyber mall based on the World-Wide Web (WWW) becomes possible to be established. In the cyber mall, in addition to articles, digital contents are also sold at present. The digital contents indicate a kind of contents (work) such as image file, audio file, software, or Web page of the WWW which can be delivered via a network.

There are two kinds of purchasing methods of the digital contents. The first method is a method of delivering a copy of purchased digital contents to a computer of a customer. According to the purchasing method, since the digital contents are delivered via the network, there is a possibility that the delivery fails. When the delivery of the digital contents fails, usually, the customer needs to re-execute the purchasing process. In the case where the purchase price has been already paid, however, it is necessary to enable the purchasing process to be re-executed without paying the purchase price again.

For example, in ASCII Digital Novels from which a novel can be purchased in a document file on a chapter unit basis, when a download of the document file fails, if the customer re-purchases it within 72 hours after the purchase, the customer is not billed again.

Similarly, in "gu-mantanya" from which images can be purchased on a file unit basis, when the download of an image file fails, if the customer re-purchases it within 72 hours after the purchase, the customer is not billed again. The re-purchase can be executed up to three times only.

In "buydirect.com" from which software can be purchased on-line, when the download of software fails, if the customer re-purchases it within 30 days after the purchase, the customer is not billed again. Basically, the re-purchase can be executed up to three times only. When the re-purchase fails three times, if the customer informs customer service of such a fact, the number of times downloading can be made is increased.

According to the second method, the customer views the purchased digital contents via a WWW browser. According to such a purchasing method, when an access to a WWW page displaying the digital contents fails, the digital contents cannot be viewed. If the digital contents are, however, those of a regular subscription type like a subscription of a news service, there is no additional charge even if the contents are viewed again.

SUMMARY OF THE INVENTION

According to the conventional techniques, in a procedure for re-purchasing digital contents when the delivery of the digital contents fails, the number of times the re-delivery can be executed and a period during which the re-purchase can be performed are limited, which creates problems for the customer.

It is an object of the present invention to provide a cyber mall system in which even if a delivery of purchased digital contents fails, at the time of re-purchase of the digital contents, the digital contents are delivered again only by

selecting the digital contents in which the re-delivery is desired without re-paying a goods price and re-inputting customer information.

In order to solve the above problems, first, using conditions of digital contents are provided. The using conditions of the digital contents denote restricting conditions of an access to the digital contents main body and matters that require attention upon access.

As restricting conditions of access to the digital contents, there are an access control on a cyber mall server side and a physical act restriction on a cyber mall client side. For example, in the access control on the cyber mall server side, the period and number of times of accesses to the purchased digital contents are limited. As a physical act restriction on the cyber mall client side, there is an act which can be performed to the digital contents, for example, an act restriction which can be forcedly controlled on the cyber mall client side for printing and copying.

As matters that require attention upon access to the digital contents, there is a logical act control restriction on the cyber mall client side. The logical act control restriction on the cyber mall client side includes matters that require attention regarding the use of the digital contents, for example, an act restriction for a secondary use or a commercial use which cannot be controlled on the cyber mall client side and can be executed only by the law (that is, gentleman's agreement).

A value that the customer pays when the customer purchases the digital contents is associated with the digital contents. As a value, there are not only payment of a goods price of the digital contents but also an input of customer information and an approval to a contract regarding the use of the digital contents. For example, as customer information, there are a name and an electronic mail address as personal information of the customer. The contract regarding the use of the digital contents is an agreement by which the customer agrees to follow a copyright of the digital contents and the using conditions of the digital contents.

The using conditions and value are set together with goods attributes when a shop manager of a cyber shop defines the digital contents as goods. By registering different using conditions and different values for certain digital contents, one digital contents can be provided as a plurality of goods.

Further, when the cyber mall server sells the digital contents, in addition to information of the goods to be sold and information of the customer, a digital contents customer generates and accumulates personal using conditions as a certificate showing that the digital contents customer purchased the digital contents on the basis of information in which variable portions of the using conditions and value are replaced to definite values.

After the personal using conditions were generated, the cyber mall server delivers a copy of the sold digital contents to the cyber mall client. When a physical act restriction on the cyber mall client side is defined in the digital contents, the physical act restriction is built in the digital contents and resultant digital contents are delivered.

All of the using conditions of the digital contents and the personal using conditions are managed on the cyber mall server side.

When the delivery of the digital contents fails, the digital contents customer re-purchases the digital contents. The cyber mall server retrieves the personal using conditions generated for the digital contents which the digital contents customer desires to re-purchase. When the digital contents

customer has valid personal using conditions of the digital contents to be re-purchased, the cyber mall server re-delivers a copy of the digital contents to the cyber mall client without re-collecting the value of the digital contents.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a constructional diagram of a digital contents sales cyber mall system of an embodiment;

FIG. 2 is a relation diagram of a processing unit of the digital contents sales cyber mall system of the embodiment and a management table;

FIG. 3 is an association diagram of digital contents using conditions;

FIG. 4 is an association diagram of digital contents goods definition attributes;

FIG. 5 is a diagram showing steps at the time of definition of digital contents goods;

FIG. 6 is a diagram showing a picture for definition of the digital contents goods;

FIG. 7 is a diagram showing a picture for definition of the digital contents using conditions;

FIG. 8 is a diagram showing an entry of a generated digital contents goods management table;

FIG. 9 is a diagram showing an entry of a generated digital contents using condition definition table;

FIG. 10 is a diagram showing steps of purchasing digital contents;

FIG. 11 is a diagram showing steps of searching an image file to be purchased;

FIG. 12 is a diagram showing steps for a purchase price settlement process;

FIG. 13 is a diagram showing steps for a digital contents delivery;

FIG. 14 is a diagram showing an example of a picture for log-in of a cyber mall;

FIG. 15 is a diagram showing an example of a picture of a log-in user top page;

FIG. 16 is a diagram showing an example of a picture of an image shop list;

FIG. 17 is a diagram showing an example of a picture of an image shop top page;

FIG. 18 is a diagram showing an example of a picture of an image list;

FIG. 19 is a diagram showing an example of a picture for display of an abstract of using conditions of a purchase image;

FIG. 20 is a diagram showing an example of a picture for display of an agreement of using conditions of a purchase image;

FIG. 21 is a diagram showing an example of a picture for settlement of an image purchase price;

FIG. 22 is a diagram showing an example of a picture for input of an image customer information;

FIG. 23 is a diagram showing an example of a picture for start of a downloading of a purchase image;

FIG. 24 is a diagram showing an entry of a generated personal using condition table;

FIG. 25 is a diagram showing an entry of a generated customer information management table;

FIG. 26 is a diagram showing steps of searching news to be purchased;

FIG. 27 is a diagram showing an example of a picture of a news subscribing service list;

FIG. 28 is a diagram showing an example of a picture of a news service top page;

FIG. 29 is a diagram showing an example of a picture of a news service list;

FIG. 30 is a diagram showing an example of a picture for display of an abstract of using conditions of a purchase news service;

FIG. 31 is a diagram showing an example of a picture for display of an agreement of using conditions of a purchase news service;

FIG. 32 is a diagram showing an example of a picture for settlement of a news service purchase price;

FIG. 33 is a diagram showing an example of a picture for input of news service customer information;

FIG. 34 is a diagram showing an example of a picture for start of a viewing of a purchase news service;

FIG. 35 is a diagram showing an entry of a generated personal using condition table;

FIG. 36 is a diagram showing an entry of a generated customer information management table;

FIG. 37 is a diagram showing steps of again purchasing goods; and

FIG. 38 is a diagram showing an example of a picture of a purchased personal using condition list.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

An embodiment of the invention will now be described in detail hereinbelow.

FIG. 1 is a block diagram showing a construction of a digital contents sales cyber mall system according to the embodiment of the invention. Reference numeral **100** denotes a cyber shop client; and **110** a cyber mall server; **130** a cyber mall client. Reference numeral **101** denotes digital contents; **102** digital contents goods attributes as goods attributes of the digital contents **101**; **103** a digital contents value as a value of the digital contents **101**; and **104** digital contents using conditions as using conditions of the digital contents **101**. The digital contents goods attributes **102**, digital contents value **103**, and digital contents using conditions **104** are defined when the cyber shop client **100** registers goods of the digital contents **101** into the cyber mall server **110**.

Reference numeral **111** denotes a digital contents goods information management to manage goods information of the digital contents **101**; **112** a digital contents using condition information management to manage using condition information of the digital contents **101**; **113** a digital contents personal using condition information management to manage personal using condition information which is allocated to a customer of the digital contents **101**; **114** a digital contents collection value information management to manage the digital contents value **103** which is collected at the time of sales of the digital contents **101**; **115** a WWW server; **116** a delivery article in which physical act restriction information of the digital contents **101** has been built in the digital contents **101**; and **117** a downloader to generate a delivery article. Reference numeral **131** denotes a WWW browser and **132** indicates a viewer to display the delivery article **116**. The viewer **132** is controlled by the physical act restriction information of the digital contents **101** built in the delivery article **116**.

FIG. 2 is a block diagram showing the relation between a processing unit of the digital contents sales cyber mall

system as an embodiment of the invention and a management table. Reference numeral **100** denotes the cyber shop client; **201** an input apparatus of the cyber shop client **100**; **202** an input processing unit for processing an input from the input apparatus **201**; **203** an output apparatus of the cyber shop client **100**; and **204** an output processing unit for processing an output to the output apparatus **203**.

Reference numeral **110** denotes the cyber mall server; **211** a digital contents goods definition processing unit to define the digital contents goods attributes **102** and digital contents value **103**; **212** a digital contents using condition definition processing unit to define the digital contents using conditions **104**; **213** a digital contents goods management table to accumulate goods definition information of the digital contents **101**; **214** a digital contents using condition table to accumulate the digital contents using conditions **104**; **215** a digital contents personal using condition definition processing unit to generate personal using conditions of the digital contents **101**; **216** a digital contents value collection processing unit to collect the digital contents value **103**; **217** a digital contents personal using condition management table to accumulate the personal using conditions of the digital contents **101**; **218** a customer information management table to accumulate digital contents customer information as one of the digital contents value **103**; **219** a digital contents personal using condition retrieval processing unit to retrieve the digital contents personal using condition management table **217**; **220** a page template information table to accumulate a page template to generate an input/output page; and **221** a page template processing unit to generate the input/output page from the page template information table **220**.

Reference numeral **130** denotes the cyber mall client; **231** an input apparatus of the cyber mall client **130**; **232** an input processing unit for processing an input from the input apparatus **231**; **233** an output apparatus of the cyber mall client **130**; and **234** an output processing unit to process an output to the output apparatus **233**.

FIG. 3 is a diagram showing an example of a dependency relation among the digital contents using conditions **104**. Reference numeral **300** denotes an access control on the cyber mall server **110** side; **310** a physical act restriction on the cyber mall client **130** side; and **320** a logical act restriction on the cyber mall client **130** side.

As an access control **300** on the cyber mall server **110** side, there is an access period control **301** for the purchased digital contents **101**. In this example, either a mode to limit an access period or a mode without a period limitation can be selected. As a physical act restriction **310** on the cyber mall client **130** side, there are an “execute” **311** as an act which can be performed in a browser non-display type contents such as software or the like, “replay” **313** as an act which can be performed in a stream type contents; “view” **312** as an act which can be performed in the browser display type contents such as an image file or the like, “print” **314**, “save” **315**, and “cut and paste” **316**. A dependency relation of the acts which can be performed in the browser display type contents is as follows. The “view” **312** is a prerequisite condition as for the “print” **314** and “save” **315**, respectively. That is, unless there is an authority to see the digital contents **101**, the digital contents **101** cannot be printed and saved. The “save” **315** is a prerequisite condition as for the “cut and paste” **316**. That is, unless there is an authority to save the digital contents **101**, the digital contents **101** cannot be cut and pasted.

The logical act restriction **320** on the cyber mall client **130** side comprises an application **321** and an act **325**. The

application **321** is a use object of the digital contents **101** and includes a commercial use **322** and a personal use **323**. The act **325** is an act which is executed for the digital contents **101** and includes “sales delivery” **326**, “copy” **327**, “adapt” **328**, and “print” **329**. A dependency relation between the physical act restriction **310** on the cyber mall client **130** side and the logical act restriction **320** on the cyber mall client **130** side is as follows. The “copy” **327** is a prerequisite condition as for “adapt” **328**. That is, unless there is an authority to copy the digital contents **101**, the digital contents **101** cannot be processed. The “save” **315** is a prerequisite condition as for the “copy” **327**. That is, unless there is an authority to save the digital contents **101**, the digital contents **101** cannot be copied. The “cut and paste” **316** is a prerequisite condition as for the “adapt” **328**. That is, unless there is an authority to cut and paste the digital contents **101**, the digital contents **101** cannot be processed.

FIG. 4 is a diagram showing an example of the relation among the attributes which are defined when the digital contents **101** are registered as goods into the cyber mall server **110**. Reference numeral **102** denotes the digital contents goods attributes; **103** the digital contents value; and **104** the digital contents using conditions. As digital contents goods attributes **102**, for example, there are a goods name of the digital contents **101** and the kind of digital contents **101**. As a digital contents value **103**, here are an approval **411** to an agreement of the digital contents using conditions as a contract regarding the use of the digital contents **101**, digital contents customer information **412** as personal information (for example, a name and an electronic mail address) of the customer of the digital contents **101**, and a goods price **413** of the digital contents **101**. The digital contents using conditions **104** comprise the access control **300** on the cyber mall server **110** side, the physical act restriction **310** on the cyber mall client **130** side, and the logical act restriction **320** on the cyber mall client **130** side.

The digital contents **101** are registered as one goods by a combination of the digital contents goods attributes **102**, digital contents value **103**, and digital contents using conditions **104**. Therefore, even if the digital contents goods attributes **102** are the same, by defining the different digital contents value **103** or digital contents using conditions **104**, the digital contents **101** can be registered as a plurality of goods.

A goods defining step of the digital contents **101** will now be described with reference to a flowchart of FIG. 5. The goods defining step is as follows. In the embodiment, it is now assumed that the shop manager interactively inputs the goods definition by using the cyber shop client **100**.

First, the cyber shop client **100** transmits a goods definition page request command to the cyber mall server **110** (**501**). The cyber mall server **110** receives the goods definition page request command (**502**) and generates a goods definition page (**503**) and, thereafter, transmits the goods definition page to the cyber shop client **100** (**504**). After the goods definition page was received (**505**), the cyber shop client **100** displays the goods definition page (**506**). FIG. 6 shows an example of the goods definition page.

The shop manager inputs goods definition information of the digital contents **101** by using the goods definition page (**507**). In the goods definition page, definition information of the digital contents goods attributes **102** and digital contents value **103** are inputted. In the embodiment, it is assumed that an image file of an apple is registered as goods. “apple” is set as a goods name **601** as digital contents goods attributes **102**. “¥100” is set as a goods price **602** serving as a goods

price **413** of the digital contents **101**. An electronic mail address **604** is set as digital contents customer information **412**. “necessary” **608** is set as an approval **411** of the agreement.

After completion of the input, by pressing a transmission button **610**, the cyber shop client **100** transmits the goods definition information to the cyber mall server **110** (**508**). The cyber mall server **110** receives the goods definition information (**509**), generates a digital contents using condition definition page (**510**), and thereafter, transmits the digital contents using condition definition page to the cyber shop client **100** (**511**). After the digital contents using condition definition page was received (**512**), the cyber shop client **100** displays the digital contents using condition definition page (**513**). FIG. 7 shows an example of the digital contents using condition definition page.

The shop manager inputs the digital contents using conditions **104** by using the digital contents using condition definition page. First, the access control **300** on the cyber mall server **110** side is set (**514**). In the period setting, there are three kinds of periods comprising a relative term **701**, an absolute term **702**, and non-limitation **703**. In the relative term **701**, a period of time during which it is possible to access to the digital contents **101** from the purchase date of the digital contents **101**. In the absolute term **702**, the last date when it is possible to access to the purchased digital contents **101** is set. When the period setting is not provided, the non-limitation **703** is selected. In this example, the non-limitation **703** is selected.

Subsequently, the logical act restriction **320** of the digital contents on the cyber mall client **130** side is set (**515**). First, as an expressing method of the digital contents **101**, any one of “view” **704**, “execute” **705**, and “replay” **706** is selected. The “view” **704** is selected in case of the browser non-display type contents. The “execute” **705** is selected in case of the browser display type contents. The “replay” **706** is selected in case of the stream type contents. In the embodiment, the “view” **704** is selected because the goods to be registered are an image file.

Either a personal use **707** or a commercial use **708** is now selected as an application permission of the digital contents **101**. In case of personally using the digital contents **101**, the personal use **707** is selected. In case of commercially using the digital contents **101**, the commercial use **708** is selected. In this example, the personal use **707** is selected.

As a use permission range of the digital contents **101**, a relevant item is selected from “inhibit sales delivery (commercial use) **709**, “permit sales delivery (commercial use) **710**, “inhibit copy” **711**, “permit copy” **712**, “inhibit processing” **713**, “permit processing” **714**, “inhibit printing” **715**, and “permit printing” **716**. In this example, the “inhibit sales delivery (commercial use) **709**, “permit copy” **712**, “inhibit processing” **713**, and “permit printing” **716** are selected.

The presence or absence of the forced exercise of the logical act restriction **320** on the cyber mall client **130** side is subsequently set. Either “forcedly exercise” **717** or “not forcedly exercise” **718** is selected here. When the “forcedly exercise” **717** is selected, the physical act restriction **310** on the cyber mall client **130** side which is not contradictory to the logical act restriction **320** on the cyber mall client **130** side which was set is set. In this example, the “forcedly exercise” **717** is selected.

Finally, additional items are set (**516**). In case of setting using conditions other than the foregoing selection items, additional using conditions are inputted to the additional items **719**.

When a transmission button **720** is pressed after completion of the input, the cyber shop client **100** transmits the input information to the cyber mall server **110** (**517**). The cyber mall server **110** receives the input information (**518**). The digital contents using condition definition processing unit **212** generates an entry into the digital contents using condition table **214** (**519**). The digital contents goods definition processing unit **211** generates an entry into the digital contents goods management table **213** (**520**).

FIG. 8 is an example of an entry of the digital contents goods management table **213**. As typical fields of the table, there are: a goods name **801** of the digital contents; a member shop ID **802** as an ID of the cyber shop; a using condition ID **803** as an identifier of the using conditions defined for the digital contents **101**; a price **804** as a goods price **413** of the digital contents **101**; and customer information **805** as digital contents customer information **412**.

In this example, “apple” of the goods name **601** inputted by the shop manager by using the goods definition page in FIG. 6 is allocated to the goods name **801**. The ID of the cyber shop is allocated to the member shop ID **802**. A using condition ID **901** which is automatically given in the digital contents using condition table **214** is allocated to the using condition ID **803**. “¥100” of the goods price **602** inputted by the shop manager by using the goods definition page in FIG. 6 is allocated to the price **804**. “electronic mail address” of **604** is allocated to the customer information **805**.

FIG. 9 shows an example of an entry in the digital contents using condition table **214**. As typical fields of the table, there are: the using condition ID **901** as an identifier of the using conditions defined for the digital contents **101**; a server access right **902** showing the presence or absence of the access control which is performed on the cyber mall server **110** side; a relative term **903** as a term in the case where a relative access period control is executed on the cyber mall server **110** side; a relative term unit **904** as a unit (for example, month or day) of the relative term; a gentleman’s agreement application **905** as an application which is defined by the logical act restriction **320** on the cyber mall client side; a gentleman’s agreement act **906** which is defined by the logical act restriction **320** on the cyber mall client side and is an act which can be performed for the digital contents **101**; and a forced exercise **907** showing the presence or absence of the physical act restriction **310** on the cyber mall client side.

In this example, the using condition ID **901** is automatically given by the using condition processing unit. The non-limitation **703**, personal use **707**, copy **712**, printing **716**, and forcedly exercise **717** which were inputted by the shop manager by using the using condition definition picture plane in FIG. 7 are allocated to the server access right **902**, gentleman’s agreement application **905**, gentleman’s agreement act **906**, and forced exercise **907**, respectively. Since non-limitation **703** has been set for the server access right **902**, nothing is allocated to the relative term **903** and relative term unit **904**.

A step of purchasing the digital contents **101** will now be described with reference to a flowchart of FIG. 10. In this embodiment, it is assumed that the customer purchases the image file of the apple which has been registered as goods in the flowchart of FIG. 5 by using the cyber mall client **130**. The purchasing step is as follows.

First, the customer performs a log-in to the cyber mall (**1001**). FIG. 14 is an example of a log-in picture plane. At the time of log-in, after a user ID **1401** and a password **1402** were inputted, a log-in button **1403** is pressed.

After the log-in, the digital contents **101** to be purchased in the mall is searched (**1002**). FIG. **11** is a flowchart showing detailed processes in step **1002**.

The cyber mall client **130** transmits a top page request command of the log-in user as a customer to the cyber mall server **110** (**1101**). The top page is a page of the log-in user himself/herself which is first displayed after the log-in to the cyber mall was performed. The cyber mall server **110** receives the top page request command of the log-in user (**1102**), generates the top page of the log-in user (**1103**), and after that, transmits the top page of the log-in user to the cyber mall client **130** (**1104**). After the top page of the log-in user was received (**1105**), the cyber mall client **130** displays the top page of the log-in user (**1106**). FIG. **15** shows an example of the top page for the log-in user.

In the embodiment, since the image file is purchased, in this page, the log-in user selects an image shop list **1501** (**1107**). The cyber mall client **130** transmits an image shop list page request command to the cyber mall server **110** (**1108**). The cyber mall server **110** receives the image shop list page request command (**1109**), generates an image shop list page (**1110**), and thereafter, transmits the image shop list page to the cyber mall client **130** (**1111**). After the image shop list page was received (**1112**), the cyber mall client **130** displays the image shop list page (**1113**). FIG. **16** shows an example of the top page for the log-in user.

In this page, one image shop is selected from the image shop list. The log-in user selects an image shop CardHouse **1601** (**1114**). The cyber mall client **130** transmits a CardHouse top page request command to the cyber mall server **110** (**1115**). The cyber mall server **110** receives the CardHouse top page request command (**1116**), generates a CardHouse top page (**1117**), and thereafter, transmits the CardHouse top page to the cyber mall client **130** (**1118**). After the CardHouse top page was received (**1119**), the cyber mall client **130** displays the CardHouse top page (**1120**). FIG. **17** shows an example of the CardHouse top page.

In this page, one menu is selected to search an image file to be purchased. The log-in user selects a recent popular image **1701** (**1121**). The cyber mall client **130** transmits a request command of the recent popular image page to the cyber mall server **110** (**1122**). The cyber mall server **110** receives the recent popular image page request command (**1123**), generates a recent popular image page (**1124**), and thereafter, transmits the recent popular image page to the cyber mall client **130** (**1125**). After the recent popular image page was received (**1126**), the cyber mall client **130** displays the recent popular image page (**1127**). FIG. **18** shows an example of the recent popular image page.

In this page, one image to be purchased is selected. The log-in user presses a purchase button **1802** below an image **1801** of an apple to be purchased (**1128**). In this manner, the processes of the flowchart of FIG. **11** are finished.

The cyber mall client **130** transmits information of the digital contents **101** to be purchased by the log-in user to the cyber mall server **110** (**1003**). The cyber mall server **110** receives the information of the digital contents **101** to be purchased by the log-in user (**1004**) and retrieves the digital contents using conditions **104** from the digital contents using condition table **214** on the basis of the received information (**1005**).

The cyber mall server **110** generates a page to explain an abstract of the digital contents using conditions on the basis of the digital contents using conditions **104** (**1006**) and, after that, transmits the digital contents using condition abstract explanation page to the cyber mall client **130** (**1007**). After

the digital contents using condition abstract explanation page was received (**1008**), the cyber mall client **130** displays the digital contents using condition abstract explanation page (**1009**). FIG. **19** shows an example of the digital contents using condition abstract explanation page.

The log-in user reads an abstract **1901** of the using conditions of an image to be purchased and presses an agree button **1902** if he/she agrees with the using conditions (**1010**). If the log-in user does not agree, he/she clicks a refuse button **1903** and finishes the processes.

When the agree button **1902** is pressed, the cyber mall client **130** transmits a message showing that the log-in user agreed with the abstract **1901** of the using conditions to the cyber mall server **110** (**1011**). After agreement information was received (**1012**), the cyber mall server **110** generates a digital contents using condition agreement explanation page (**1013**) on the basis of the digital contents using conditions **104** and, after that, transmits the digital contents using condition agreement explanation page to the cyber mall client **130** (**1014**). After the digital contents using condition agreement explanation page was received (**1015**), the cyber mall client **130** displays the digital contents using condition agreement explanation page (**1016**). FIG. **20** shows an example of the digital contents using condition agreement explanation page.

The log-in user reads an agreement **2001** of the using conditions of an image to be purchased and presses an agree button **2002** (**1017**) if he/she agrees with the contents of the agreement. If the log-in user does not agree, he/she clicks a refuse button **2003** and finishes the processes.

When the agree button **2002** is pressed, the cyber mall client **130** transmits a message showing that the log-in user agreed with the agreement **2001** of the using conditions to the cyber mall server **110** (**1018**). After agreement information was received (**1019**), the cyber mall server **110** retrieves the goods price **413** of the digital contents and the digital contents customer information **412** from the digital contents goods management table **213** (**1020**). The digital contents value collection processing unit **216** settles the purchase price on the basis of the goods price **413** of the digital contents (**1021**). FIG. **12** is a flowchart showing a detailed process in step **1020**. In the embodiment, a settlement is performed by using a credit card.

The cyber mall server **110** generates a purchase price settlement page (**1201**) and transmits the purchase price settlement page to the cyber mall client **130** (**1202**). After the purchase price settlement page was received (**1203**), the cyber mall client **130** displays the purchase price settlement page (**1204**). FIG. **21** shows an example of the purchase price settlement page.

On the purchase price settlement page, the log-in user inputs a kind of credit card **2101**, a credit card number **2102**, a valid term **2103** of the credit card, and a name of card owner **2104** and presses a settlement button **2105** (**1205**). When the settlement button **2105** is pressed, the cyber mall client **130** transmits settlement information inputted to the cyber mall server **110** (**1206**). After the settlement information was received (**1207**), the cyber mall server **110** executes a settlement process of the credit card (**1208**). In this manner, the processes of the flowchart of FIG. **12** are finished.

When the settlement process of the purchase price is normally finished, the digital contents value collection processing unit **216** collects the digital contents customer information **412**. The cyber mall server **110** generates a customer information input page on the basis of the digital contents customer information **412** (**1022**) and, after that,

transmits the customer information input page to the cyber mall client **130** (**1023**). After the customer information input page was received (**1024**), the cyber mall client **130** displays the customer information input page (**1025**). FIG. 22 shows an example of the customer information input page.

The log-in user inputs an electronic mail address **2201** and presses a transmission button **2202** (**1026**). When the transmission button **2202** is pressed, the cyber mall client **130** transmits the customer information inputted to the cyber mall server **110** (**1027**). The cyber mall server **110** receives the customer information (**1028**). The digital contents personal using condition definition processing unit **215** generates an entry into the digital contents personal using condition management table **217** (**1029**). The digital contents value collection processing unit **216** generates an entry into the customer information management table **218** (**1030**).

FIG. 24 shows an example of the entry of the digital contents personal using condition management table **217**. As typical fields of the table, there are: a user ID **2401** as an identifier of the user who purchased the digital contents **101**; a personal using condition ID **2402** as an identifier of the digital contents personal using conditions given to the digital contents customer; a goods name **2403** of the purchased digital contents **101**; a member shop name **2404** of a member shop who sold the purchased digital contents **101**; a purchase date **2405** as a date of purchase of the digital contents **101**; a valid term **2406** as a term when it is possible to access to the purchased digital contents **101**; and a using condition situation **2407** as a situation (for example, valid, out-of valid, etc.) of the using conditions.

In this example, the user ID **1401** inputted when the log-in is performed to the cyber mall is allocated to the user ID **2401**. An identifier which is automatically given by the digital contents personal using condition definition processing unit **215** is allocated to the personal using condition ID **2402**. The goods name **801** in the entry of the digital contents goods management table **213** in FIG. 8 is allocated to the goods name **2403**. The member shop ID **802** is allocated to the member shop name **2404**. The purchase date of the digital contents **101** is allocated to the purchase date **2405**. A valid term is calculated on the basis of the term information of the entry of the using condition table **214** in FIG. 9 and is allocated to the valid term **2406**. In this example, since the server access right **902** is set to "non-limitation", "indefinite" is allocated to the valid term **2406**. The using condition situation **2407** is set to "valid". The value of the using condition situation **2406** can be set to "out-of term" or "invalid" besides "valid".

FIG. 25 shows an example of the entry of the user information management table. As typical fields of the table, there are: a user name **2501** as a name of the user who purchased the digital contents **101**; an electronic mail address **2502** as an electronic mail address of the user who purchased the digital contents **101**; an address **2503** as an address of the user who purchased the digital contents **101**; and a telephone number **2504** as a telephone number of the user who purchased the digital contents **101**. In this example, the electronic mail address **2201** inputted by the customer information input page of FIG. 22 is allocated to the electronic mail address **2502**.

Finally, the cyber mall server **110** delivers the digital contents **101** which the log-in user purchased (**1031**). FIG. 13 is a flowchart showing the detailed processes in step **1031**. In this example, since the purchased digital contents **101** are the image file, the cyber mall server **110** delivers a copy of the image file to the cyber mall client **130**.

The cyber mall server **110** generates a delivery start page of the purchase image (**1301**) and transmits the delivery start page of the purchase image to the cyber mall client **130** (**1302**). After the delivery start page of the purchase image was received (**1303**), the cyber mall client **130** displays the delivery start page of the purchase image (**1304**). FIG. 23 shows an example of the delivery start page of the purchase image.

When the log-in user presses a download button **2301** as a delivery start button of the purchase image (**1305**), the cyber mall client **130** transmits a digital contents delivery request command to the cyber mall server **110** (**1306**). After the cyber mall server **110** received the digital contents delivery request command (**1307**), the downloader **117** delivers the delivery article **116** in which the information of the physical act restriction **310** on the cyber mall client **130** side has been built in the copy of the digital contents **101** as a purchase image to the cyber mall client **130** (**1308**).

The cyber mall client **130** receives the delivery article (**1309**) and the digital contents purchasing process is finished. In the cyber mall client **130**, the digital contents **101** in the delivery article **116** are displayed by the viewer **132**. The viewer **132** is controlled by the information of the physical act restriction **310** on the cyber mall client **130** side built in the delivery article **116**. In this manner, the processes in the flowcharts of FIGS. 13 and 10 are finished.

A case of purchasing "daily stock prices information of 3 months" in which the digital contents **101** are one of news services will now be described with reference to the flowchart of FIG. 10. A digital contents purchasing step is as follows.

First, the customer performs a log-in to the cyber mall (**1001**). FIG. 14 shows an example of a log-in picture. At the time of log-in, after the user ID **1401** and password **1402** were inputted, the log-in button **1403** is pressed.

After the log-in, the digital contents **101** to be purchased in the mall are searched (**1002**). FIG. 26 is a flowchart showing detailed processes in step **1002**.

The cyber mall client **130** transmits a top page request command of the log-in user as a customer to the cyber mall server **110** (**2601**). The top page is a page of the log-in user himself/herself which is first displayed after the log-in was performed to the cyber mall. The cyber mall server **110** receives the top page request command of the log-in user (**2602**), generates a top page of the log-in user (**2603**), and thereafter, transmits the top page of the log-in user to the cyber mall client **130** (**2604**). After the top page of the log-in user was received (**2605**), the cyber mall client **130** displays the top page of the log-in user (**2606**). FIG. 15 shows an example of the top page for the log-in user.

In this example, since the stock prices news is purchased, in this page, the log-in user selects a news subscribing service list **1502** (**2607**). The cyber mall client **130** transmits a news subscribing service list page request command to the cyber mall server **110** (**2608**). The cyber mall server **110** receives the news subscribing service list page request command (**2609**), generates a news subscribing service list page (**2610**), and thereafter, transmits the news subscribing service list page to the cyber mall client **130** (**2611**). After the news subscribing service list page was received (**2612**), the cyber mall client **130** displays the news subscribing service list page (**2613**). FIG. 27 shows an example of the news subscribing service list page.

In this page, one of news services is selected from the news subscribing service list. The log-in user selects a stock prices news **2701** (**2614**). The cyber mall client **130** trans-

mits a stock prices news top page request command to the cyber mall server **110** (**2615**). The cyber mall server **110** receives the stock prices news top page request command (**2616**), generates a stock prices news top page (**2617**), and thereafter, transmits the stock prices news top page to the cyber mall client **130** (**2618**). After the stock prices news top page was received (**2619**), the cyber mall client **130** displays the stock prices news top page (**2620**). FIG. **28** shows an example of the stock prices news top page.

In this page, one menu is selected to search the stock prices news to be purchased. The log-in user selects daily stock prices information **2801** (**2621**). The cyber mall client **130** transmits a daily stock prices information page request command to the cyber mall server **110** (**2622**). The cyber mall server **110** receives the daily stock prices information page request command (**2623**), generates a daily stock prices information page (**2624**), and thereafter, transmits the daily stock prices information page to the cyber mall client **130** (**2625**). After the daily stock prices information page was received (**2626**), the cyber mall client **130** displays the daily stock prices information page (**2627**). FIG. **29** shows an example of the daily stock prices information page.

In this page, one subscribing period of the daily stock prices information to be purchased is selected. The log-in user presses a purchase button **2902** beside a 3-month subscription **2901** to be purchased (**2628**). In this manner, the processes in the flowchart of FIG. **26** are finished.

The cyber mall client **130** transmits the information of the digital contents **101** to be purchased by the log-in user to the cyber mall server **110** (**1003**). The cyber mall server **110** receives the information of the digital contents **101** to be purchased by the log-in user (**1004**) and searches the digital contents using conditions **104** from the digital contents using condition table **214** on the basis of the received information (**1005**).

The cyber mall server **110** generates a digital contents using condition abstract explanation page on the basis of the digital contents using conditions **104** (**1006**) and, thereafter, transmits the digital contents using condition abstract explanation page to the cyber mall client **130** (**1007**). After the digital contents using condition abstract explanation page was received (**1008**), the cyber mall client **130** displays the digital contents using condition abstract explanation page (**1009**). FIG. **30** shows an example of the digital contents using condition abstract explanation page.

The log-in user reads an abstract **3001** of the using conditions of the image to be purchased and presses an agree button **3002** if he/she agrees with the using conditions (**1010**). If the log-in user does not agree, he/she clicks a refuse button **3003** and finishes the processes.

When the agree button **1902** is pressed, the cyber mall client **130** transmits a message indicating that the log-in user agreed with the abstract **1901** of the using conditions to the cyber mall server **110** (**1011**). After the agreement information was received (**1012**), the cyber mall server **110** generates a digital contents using condition agreement explanation page on the basis of the digital contents using conditions **104** (**1013**) and, thereafter, transmits the digital contents using condition agreement explanation page to the cyber mall client **130** (**1014**). After the digital contents using condition agreement explanation page was received (**1015**), the cyber mall client **130** displays the digital contents using condition agreement explanation page (**1016**). FIG. **31** shows an example of the digital contents using condition agreement explanation page.

The log-in user reads an agreement **3101** of the using conditions of an image to be purchased and presses an agree

button **3102** if he/she agrees with the contents of the agreement (**1017**). If the log-in user does not agree, he/she clicks a refuse button **3103** and finishes the processes.

When the agree button **3102** is pressed, the cyber mall client **130** transmits a message showing that the log-in user agreed with the agreement **2001** of the using conditions to the cyber mall server **110** (**1018**). After the agreement information was received (**1019**), the cyber mall server **110** retrieves the goods price **413** of the digital contents and the digital contents customer information **412** from the digital contents goods management table **213** (**1020**). The digital contents value collection processing unit **216** settles the purchase price on the basis of the goods price **413** of the digital contents (**1021**). FIG. **12** is a flowchart showing detailed processes in step **1021**. In the embodiment, the settlement is performed by using a credit card.

The cyber mall server **110** generates a purchase price settlement page (**1201**) and transmits the purchase price settlement page to the cyber mall client **130** (**1202**). After the purchase price settlement page was received (**1203**), the cyber mall client **130** displays the purchase price settlement page (**1204**). FIG. **32** shows an example of the purchase price settlement page.

The log-in user inputs a kind **3201** of credit card, a credit card number **3202**, a valid term **3203** of the credit card, and a name **3204** of card owner by using the purchase price settlement page and presses a settlement button **3205** (**1205**). When the settlement button **3205** is pressed, the cyber mall client **130** transmits the inputted settlement information to the cyber mall server **110** (**1206**). After the settlement information was received (**1207**), the cyber mall server **110** executes a settlement process of the credit card (**1208**). In this manner, the processes in the flowchart of FIG. **12** are finished.

When the settlement process of the purchase price is normally finished, the digital contents value collection processing unit **216** collects the digital contents customer information **412**. The cyber mall server **110** generates a customer information input page on the basis of the digital contents customer information **412** (**1022**) and, thereafter, transmits the customer information input page to the cyber mall client **130** (**1023**). After the customer information input page was received (**1024**), the cyber mall client **130** displays the customer information input page (**1025**). FIG. **33** shows an example of the customer information input page.

The log-in user inputs a name **3301** and an electronic mail address **3302** and presses a transmission button **3303** (**1026**). When the transmission button **3303** is pressed, the cyber mall client **130** transmits the inputted customer information to the cyber mall server **110** (**1027**). The cyber mall server **110** receives the customer information (**1028**). The digital contents personal using condition definition processing unit **215** generates an entry into the digital contents personal using condition management table **217** (**1029**). The digital contents value collection processing unit **216** generates an entry into the customer information management table **218** (**1030**).

FIG. **35** shows an example of the entry of the digital contents personal using condition management table **217**. As typical fields of the table, there are: a user ID **3501** as an identifier of the user who purchased the digital contents **101**; a personal using condition ID **3502** as an identifier of the digital contents personal using conditions given to the customer of the digital contents; a goods name **3503** of the purchased digital contents **101**; a member shop name **3504** of a member shop which sold the purchased digital contents

101; a purchase date **3505** as a date of purchase of the digital contents **101**; a valid term **3506** as a term during which it is possible to access to the purchased digital contents **101**; and a using condition situation **3507** as a situation (for example, validity, out-of term, etc.) of the using conditions.

In this example, the user ID **1401** inputted when the log-in is performed to the cyber mall is allocated to the user ID **3501**.

An identifier which is automatically given by the digital contents personal using condition definition processing unit **215** is allocated to the personal using condition ID **3502**. The goods name "daily stock prices information of 3 months" in the entry of the present goods in the digital contents goods management table **213** is allocated to the goods name **3503**. A member shop name "stock prices news" is allocated to the member shop name **3504**. The date of purchase of the digital contents **101** is allocated to the purchase date **3505**. A valid term is calculated on the basis of the term information of the entry in the using condition table **214** and allocated to the valid term **3506**. In this example, the server access right is set to "limitation", the relative term is set to 3, and the relative term unit is set to month. Therefore, the date obtained by adding 3 months to the purchase date is allocated to the valid term **3506**. The using condition situation **3507** is set to "valid".

FIG. **36** shows an example of the entry of the user information management table. As typical fields of the table, there are: a user name **3601** as a name of the user who purchased the digital contents **101**; an electronic mail address **3602** as an electronic mail address of the user who purchased the digital contents **101**; an address **3603** as an address of the user who purchased the digital contents **101**; and a telephone number **3604** as a telephone number of the user who purchased the digital contents **101**. In this example, the name **3301** inputted by the customer information input page in FIG. **33** is allocated to the user name **3601**. The electronic mail address **3302** is allocated to the electronic mail address **3602**.

Finally, the cyber mall server **110** delivers the digital contents **101** which the log-in user purchased (**1031**). FIG. **13** is a flowchart showing the detailed processes in step **1030**. In this example, since the purchased digital contents **101** are the news service, the cyber mall server **110** enables the cyber mall client **130** to view the WWW page in which the daily stock prices information is displayed.

The cyber mall server **110** generates a delivery start page of the purchase news service (**1301**) and transmits the delivery start page of the news service to the cyber mall client **130** (**1302**). After the delivery start page of the news service was received (**1303**), the cyber mall client **130** displays the delivery start page of the news service (**1304**). FIG. **34** shows an example of the delivery start page of the news service.

When the log-in user presses a view button **3401** as a delivery start button of the news service (**1305**), the cyber mall client **130** transmits a digital contents delivery request command to the cyber mall server **110** (**1306**). After the digital contents delivery request command was received (**1307**), the cyber mall server **110** delivers the WWW page in which the daily stock prices information is displayed (**1308**).

In the cyber mall client **130**, the delivered WWW page is displayed (**1309**) and the digital contents purchasing process is finished. In this manner, the processes in the flowcharts of FIGS. **13** and **10** are finished. As mentioned above, even if the kinds of digital contents differ, the purchasing steps are the same.

A re-purchasing step of the digital contents **101** when the delivery of the purchased digital contents **101** fails will now be made with reference to a flowchart of FIG. **37**. In the embodiment, the image file purchased in the flowchart of FIG. **10** is again purchased. The re-purchasing step of the digital contents **101** is as follows.

First, the customer performs a log-in to the cyber mall (**3701**). FIG. **14** shows an example of the log-in picture. At the time of log-in, after the user ID **1401** and password **1402** were inputted, the log-in button **1403** is pressed.

After the log-in, the cyber mall client **130** transmits a top page request command of the log-in user to the cyber mall server **110** (**3702**). The cyber mall server **110** receives the top page request command of the log-in user (**3703**), generates a top page of the log-in user (**3704**), and thereafter, transmits the top page of the log-in user to the cyber mall client **130** (**3705**). After the top page of the log-in user was received (**3706**), the cyber mall client **130** displays the top page of the log-in user (**3707**). FIG. **15** shows an example of the top page picture for the log-in user.

When the digital contents **101** are again purchased, the log-in user selects the personal using condition list **1504** (**3708**). The cyber mall client **130** transmits a personal using condition list page request command to the cyber mall server **110** (**3709**). The cyber mall server **110** receives the personal using condition list page request command (**3710**). The digital contents personal using condition retrieval processing unit **219** retrieves the digital contents personal using condition management table **217** on the basis of the user ID of the log-in user and extracts the personal using conditions of all of the digital contents which the log-in user purchased (**3711**). The cyber mall server **110** generates a personal using condition list page on the basis of the extracted digital contents personal using conditions (**3712**) and, thereafter, transmits the personal using condition list page to the cyber mall client **130** (**3713**). After the personal using condition list page was received (**3714**), the cyber mall client **130** displays the personal using condition list page (**3715**). FIG. **38** shows an example of the personal using condition list page.

In the first line of the personal using condition list, information of the entry in the digital contents personal using condition management table **217** in FIG. **24** is displayed. In the second line, information of the entry in the digital contents personal using condition management table **217** in FIG. **35** is displayed.

The member shop name **2404** is displayed in **3801**. The personal using condition ID **2402** is displayed in **3802**. The goods name **2403** is displayed in **3803**. The valid term **2406** is displayed in **3804**. The member shop name **3504** is displayed in **3806**. The personal using condition ID **3502** is displayed in **3807**. The goods name **3503** is displayed in **3808**. The valid term **3506** is displayed in **3809**. The delivering method of the purchased digital contents **101** is displayed in **3805** and **3810**. The reason why "download" is displayed in **3805** is because the image file is the digital contents of the kind which is delivered to the customer. The reason why "read" is displayed in **3810** is because the daily stock prices information is the digital contents of the kind in which the WWW page is viewed.

The log-in user selects the accessing method **3805** to the image file in which the delivery fails (**3716**). The cyber mall client **130** transmits the information of the selected digital contents personal using condition to the cyber mall server **110** (**3717**). After the information of the selected digital contents personal using condition was received (**3718**), the

cyber mall server **110** executes a server side access control on the basis of the valid term **2406** of the selected digital contents personal using condition (**3719**). When the valid term **2406** lies within the term and the using condition situation **2407** of the selected digital contents personal using condition is valid (**3720**), the cyber mall server **110** delivers the digital contents (**3722**). When the using condition situation of the selected digital contents personal using conditions is not valid and when the valid term **2406** does not lie within the term, the cyber mall server **110** does not deliver the digital contents **101** (**3721**).

A flowchart showing the detailed processes in step **3722** is the flowchart of FIG. **13**. In this example, since the digital contents **101** which are again purchased are the image file, the cyber mall server **110** delivers a copy of the image file to the cyber mall client **130**.

The cyber mall server **110** generates a delivery start page of the purchase image (**1301**) and transmits the delivery start page of the purchase image to the cyber mall client **130** (**1302**). After the delivery start page of the purchase image was received (**1303**), the cyber mall client **130** displays the delivery start page of the purchase image (**1304**). FIG. **23** shows an example of the delivery start page of the purchase image.

When the log-in user presses the download button **2301** as a delivery start button of the purchase image (**1305**), the cyber mall client **130** transmits a digital contents delivery request command to the cyber mall server **110** (**1306**). After cyber mall server **110** received the digital contents delivery request command (**1307**), the downloader **117** delivers the delivery article **116** obtained by building the information of the physical act restriction **310** on the cyber mall client **130** side into the copy of the digital contents **101** as a purchase image to the cyber mall client **130** (**1308**).

The cyber mall client **130** receives the delivery article (**1309**) and the digital contents purchasing process is finished. In the cyber mall client **130**, the digital contents **101** in the delivery article **116** is displayed by the viewer **132**. The viewer **132** is controlled by the information of the physical act restriction **310** on the cyber mall client **130** side built in the delivery article **116**. In this manner, the processes in the flowcharts of FIGS. **13** and **37** are finished.

A re-purchasing step when the delivery of the news service purchased in the flowchart of FIG. **10** fails will now be described with reference to the flowchart of FIG. **37**. The re-purchasing step is as follows.

First, the customer performs a log-in to the cyber mall (**3701**). FIG. **14** shows an example of the log-in picture. At the time of log-in, after the user ID **1401** and password **1402** were inputted, the log-in button **1403** is pressed.

After the log-in, the cyber mall client **130** transmits a top page request command of the log-in user to the cyber mall server **110** (**3702**). The cyber mall server **110** receives the top page request command of the log-in user (**3703**), generates a top page of the log-in user (**3704**), and thereafter, transmits the top page of the log-in user to the cyber mall client **130** (**3705**). After the top page of the log-in user was received (**3706**), the cyber mall client **130** displays the top page of the log-in user (**3707**). FIG. **15** shows an example of the top page picture plane for the log-in user.

When the digital contents **101** are again purchased, the log-in user selects the personal using condition list **1504** (**3708**). The cyber mall client **130** transmits a personal using condition list page request command to the cyber mall server **110** (**3709**). The cyber mall server **110** receives the personal using condition list page request command (**3710**). The

digital contents personal using condition retrieval processing unit **219** retrieves the digital contents personal using condition management table **217** on the basis of the user ID of the log-in user and extracts the personal using conditions of all of the digital contents which the log-in user purchased (**3711**). The cyber mall server **110** generates a personal using condition list page on the basis of the extracted digital contents personal using conditions (**3712**) and, thereafter, transmits the personal using condition list page to the cyber mall client **130** (**3713**). After the personal using condition list page was received (**3714**), the cyber mall client **130** displays the personal using condition list page (**3715**). FIG. **38** shows an example of the personal using condition list page.

The log-in user selects the delivering method **3810** to the news service in which the delivery fails (**3716**). The cyber mall client **130** transmits the information of the selected digital contents personal using condition to the cyber mall server **110** (**3717**). After the information of the selected digital contents personal using condition was received (**3718**), the cyber mall server **110** executes a server side access control on the basis of the valid term **3506** of the selected digital contents personal using condition (**3719**). When the valid term **3506** lies within the term and the using condition situation **3507** of the selected digital contents personal using condition is valid (**3720**), the cyber mall server **110** delivers the digital contents (**3722**). When the using condition situation of the selected digital contents personal using condition is not valid and when the valid term **3506** does not lie within the term, the cyber mall server **110** does not deliver the digital contents **101** (**3721**).

A flowchart showing the detailed processes in step **3722** is the flowchart of FIG. **13**. In this example, since the digital contents **101** which are again purchased are the news service, the cyber mall server **110** enables the cyber mall client **130** to view the WWW page in which the daily stock prices information is displayed.

The cyber mall server **110** generates a delivery start page of the news service (**1301**) and transmits the delivery start page of the news service to the cyber mall client **130** (**1302**). After the delivery start page of the news service was received (**1303**), the cyber mall client **130** displays the delivery start page of the news service (**1304**). FIG. **34** shows an example of the delivery start page of the news service.

When the log-in user presses the view button **3401** as a delivery start button of the news service (**1305**), the cyber mall client **130** transmits a digital contents delivery request command to the cyber mall server **110** (**1306**). After cyber mall server **110** received the digital contents delivery request command (**1307**), the WWW page in which the daily stock prices information is displayed is delivered (**1308**).

In the cyber mall client **130**, the delivered WWW page is displayed (**1309**) and the digital contents purchasing process is finished. In this manner, the processes in the flowcharts of FIGS. **13** and **37** are finished. Even if the kinds of digital contents-differ, the re-purchasing steps are the same.

According to the invention as described above, by using the digital contents using conditions and the personal using conditions, even if the delivery of the purchased digital contents fails, when the digital contents are again purchased, the digital contents are again delivered by merely selecting the digital contents in which the re-delivery is desired from the personal using condition list of the digital contents given to the customer. If the personal using conditions of the selected digital contents are valid, the digital contents are

again delivered without again paying the goods price. When the digital contents are again purchased, since the customer information inputted as one of the values of the digital contents has been accumulated in the customer information management table at the time of purchase of the digital contents, there is no need to again input the customer information. Those procedures are the same irrespective of the kind of digital contents. Therefore, a use efficiency of the cyber mall system is improved for the customer.

Since the value generally changes depending on the using conditions in the sales of the digital contents, by defining the using conditions of different act restrictions and the value according to each using condition to the same digital contents, the sales and viewing according to each of the using conditions of the digital contents are realized.

According to the invention, not only a goods catalog of the digital contents can be generated from the goods definition information of the digital contents but also the digital contents personal using conditions can be generated and given to the customer, so that there is no need to wait for the double information. Consequently, the processes from the sales promotion and order of the digital contents to the settlement can be executed from the same information without causing any mistake.

What is claimed is:

1. A contents sales method in a contents sales apparatus which sells digital contents and is connected to a contents purchasing apparatus and a cyber shop apparatus, wherein

when said digital contents which are sold by said cyber shop apparatus are registered into said contents sales apparatus, digital contents using conditions comprising a server side access control to said digital contents which is executed on said contents sales apparatus side and a physical act restriction to control an access to said digital contents which is executed on said contents purchasing apparatus side that purchased said digital contents are defined;

when said digital contents are sold, a variable portion of said digital contents using conditions corresponding to said digital contents is replaced by a specific definite value thereby generating dedicated digital contents personal using conditions for a digital contents customer and giving said digital contents personal using conditions to said digital contents customer; and

if a delivery of said digital contents to said contents purchasing apparatus fails, when said digital contents are sold, said server side access control to said digital contents based on said digital contents personal using conditions given to said digital contents customer is executed, and only when said digital contents personal using conditions are valid, said digital contents are again delivered to said contents purchasing apparatus.

2. A contents sales method in a contents sales apparatus which sells digital contents and is connected to a contents purchasing apparatus and a cyber shop apparatus, wherein

when said digital contents which are sold by said cyber shop apparatus are registered into said contents sales apparatus, digital contents using conditions comprising a server side access control to said digital contents which is executed on said contents sales apparatus side and a physical act restriction to control an access to said digital contents which is executed on said contents purchasing apparatus side that purchased said digital contents are defined;

when said digital contents are sold, a variable portion of said digital contents using conditions corresponding to said digital contents is replaced by a specific definite value thereby generating dedicated digital contents

personal using conditions for a digital contents customer and giving said digital contents personal using conditions to said digital contents customer; and

if a delivery of said digital contents to said contents purchasing apparatus fails, said digital contents customer selects said digital contents personal using conditions corresponding to said digital contents whose delivery fails from said digital contents personal using conditions given to himself/herself, so that said digital contents are again delivered.

3. A contents sales method in a cyber shop apparatus which sells digital contents and is connected to a contents sales apparatus, wherein

when said digital contents to be sold are registered into said contents sales apparatus, a goods price of the digital contents, customer information of the digital contents, a digital contents value comprising a contract regarding the use of the digital contents, and goods attributes of the digital contents are further defined, and one digital contents is registered as a plurality of goods by a combination of digital contents using conditions, said digital contents value, and said goods attributes of the digital contents; and

if said contents sales apparatus fails in delivering said digital contents to said contents purchasing apparatus, when said digital contents are sold, a server side access control to said digital contents personal using conditions given to a digital contents customer is executed, and only when said digital contents personal using conditions are valid, said digital contents are again delivered to said contents purchasing apparatus without again collecting said digital contents value.

4. A contents sales method in a cyber shop apparatus which sells digital contents and is connected to a contents sales apparatus, wherein

when said digital contents to be sold are registered into said contents sales apparatus, a goods price of the digital contents, customer information of the digital contents, a digital contents value comprising a contract regarding the use of the digital contents, and goods attributes of the digital contents are further defined, and one digital contents is registered as a plurality of goods by a combination of digital contents using conditions, said digital contents value, and said goods attributes of the digital contents; and

if said contents sales apparatus fails in delivering said digital contents to said contents purchasing apparatus, a digital contents customer selects said digital contents personal using conditions corresponding to said digital contents whose delivery fails from said digital contents personal using conditions given to himself/herself, thereby re-delivering said digital contents.

5. A contents sales method according to claim 1, wherein said variable portion of said digital contents includes relative period limitation information of said access control.

6. A contents sales method according to claim 1, wherein said specific definite value includes specific day and time.

7. A contents sales method according to claim 5, wherein said specific definite value includes specific day and time.

8. A contents sales method according to claim 2, wherein said variable portion of said digital contents includes relative period limitation information of said access control.

9. A contents sales method according to claim 2, wherein said specific definite value includes specific day and time.

10. A contents sales method according to claim 8, wherein said specific definite value includes specific day and time.